85th Congress
2d Session

COMMITTEE PRINT

FINANCING SMALL BUSINESS

REPORT

TO THE

COMMITTEES ON BANKING AND CURRENCY

AND THE

SELECT COMMITTEES ON SMALL BUSINESS
UNITED STATES CONGRESS

BY THE

FEDERAL RESERVE SYSTEM

PARTS 1 AND 2

APRIL 11, 1958

Printed for the use of the above committees

UNITED STATES
GOVERNMENT PRINTING OFFICE
23855 WASHINGTON : 1958

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STATEMENT BY CHAIRMEN

From time to time during the last 25 years the Congress has considered proposals to augment existing institutions for supplying capital and credit to private businesses. Many of these proposals have been enacted. Some of the more prominent Federal programs of this kind have been the activities of the Reconstruction Finance Corporation, the Small Defense Plants Administration, and the Small Business Administration. None of these programs has been directed toward providing capital or credit to an extent or of a kind thought to be necessary by many members of the public and of the Congress.

This thinking has become more intense in recent years. It is reflected by the many bills introduced in the 84th and the 85th Congresses and the increasing attention given the subject by the four congressional committees having primary interest—the Banking and Currency Committees and the Select Committees on Small Business of both Houses of Congress.

With the knowledge of and encouragement of these four committees, the research staffs of the Board of Governors of the Federal Reserve System are conducting a study of the financing problems of small businesses. The first 2 parts of this 3-part study are complete and were submitted to the 4 interested committees on March 31, 1958. We believe this study to be of great interest to our committees, the Congress, and to the public. We believe that consideration of pending bills dealing with this subject can be conducted more judiciously and expeditiously thereby.

J. W. FULBRIGHT,
Chairman, Senate Banking and Currency Committee.
BRENT SPENCE,
Chairman, House Banking and Currency Committee.
JOHN J. SPARKMAN,
Chairman, Senate Select Committee on Small Business.
WRIGHT PATMAN,
Chairman, House Select Committee on Small Business.

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LETTERS OF TRANSMITTAL

BOARD OF GOVERNORS OF THE
FEDERAL RESERVE SYSTEM,
Washington, March 31, 1958.

The Chairmen, Senate Committee on Banking and Currency, Senate Select Committee on Small Business, House Committee on Banking and Currency, House Select Committee on Small Business, Congress of the United States, Washington, D. C.

GENTLEMEN: Last fall the research staffs of the Board of Governors and the Federal Reserve banks undertook a study of the financing problems of small business for the information of the System, the interested committees of the Congress, as well as the public generally. Effort was directed toward developing as much information as possible for use by the Congress in its 1958 session.

I have the honor to submit herewith two parts of the study, Financing Small Business.

Part I: Background Studies, presents a series of 16 studies of aspects of small business that are important from the point of view of their financing, and a summary study. These studies are based largely on existing data and materials. They were prepared as independent papers by individual scholars at leading universities as well as by individual members of the Federal Reserve research staff.

Part II: Surveys of Credit and Capital Sources, presents the results of data obtained, by questionnaires and interviews, from commercial banks, commercial finance companies and factors, trade creditors, life-insurance companies, and investment companies and others supplying equity capital, together with a summary of the surveys. These surveys were conducted, and the results analyzed, by the Federal Reserve research staff.

Part III is a longer range, experimental venture designed to obtain information on the financial structure, practices, and problems of small-business concerns through interviews with, or mail questionnaires to, the businessmen themselves. It is still in the exploratory stage and results will not be forthcoming until sometime next year at the earliest. The Bureau of the Census of the United States Department of Commerce is cooperating in this exploratory work.

The small-business financing study is under the general supervision of Ralph A. Young, Director of the Board's Division of Research and Statistics.

It is hoped that the study will be of value to the Congress in its consideration of the financing problems of small business.

Sincerely yours,

WM. MCC. MARTIN, JR., *Chairman.*

Identical letters of transmittal to—

The Honorable J. W. Fulbright, chairman, Senate Committee on Banking and Currency, United States Senate.

The Honorable John J. Sparkman, chairman, Select Committee on Small Business, United States Senate.

The Honorable Brent Spence, chairman, House Committee on Banking and Currency, the House of Representatives.

The Honorable Wright Patman, chairman, House Select Committee on Small Business, the House of Representatives.

PREFACE

This inquiry has several objectives. First, it brings together available information bearing on the question of the financing needs of small business and the adequacy of the economy's facilities serving these needs. It develops such new information as might be helpful in clarifying a possible gap in the economy's present financial mechanism. Second, it explores the question as to whether the anti-inflationary credit and monetary policy, in effect during the years 1955–57, bore adversely on the prosperity of smaller businesses.

The scope of investigation is broad, since small-business financing is a subject of many facets and ramifications. As with other studies of national financial problems conducted under Federal Reserve auspices, the aim of investigation has been to contribute to a wider public understanding of problems of national importance and to provide information helpful in forming judgments on questions of public policy toward them.

Planning work on the investigation was initiated in the spring of 1957, when the Board of Governors assigned to the System's research staff the task of inventorying available information on small-business financing practices and problems and on needs for additional information. After several months of work, a staff exploratory group reported that, while analysis of existing data might throw considerable light on small-business financing problems, much new information would be required to answer the questions that were being crystallized in public discussion. The group, therefore, recommended a study program embracing essentially (1) a reexamination of existing data and materials bearing on the financing experience and problems of small business; (2) a cross-section survey of lender and investor operations and practices, to develop new information through interviews and questionnaires; and (3) a new comprehensive study of the financial structure and financing practices of business, giving special emphasis to the distinguishing characteristics and special problems of small-business men, with the new information to be obtained through field interviews and questionnaires on a national sampling basis.

The program was submitted in the autumn for review and comment to the Board of Governors, the presidents of the Federal Reserve banks, and the chairmen of interested committees of the Congress. Following this review, the Board authorized the investigation to be undertaken, with the understanding that work on the first two parts of the study would be completed by the spring of 1958, but that on the third part only exploratory work could be carried out by this target date.

The System planning group for the study as a whole included: Albert R. Koch, associate adviser of the Board's Division of Research and Statistics, chairman; Thomas R. Atkinson, senior economist, Federal Reserve Bank of Atlanta; Daniel H. Brill, Chief of the Capital Markets Section; and James B. Eckert, Chief of the Banking Section

of the Board's Division of Research and Statistics; Robert S. Einzig, assistant vice president, Federal Reserve Bank of San Francisco; Lyle E. Gramley, economist, Federal Reserve Bank of Kansas City; George W. Mitchell, vice president, Federal Reserve Bank of Chicago; Robert V. Roosa, vice president, Federal Reserve Bank of New York; Charles E. Walker, vice president, Federal Reserve Bank of Dallas; and James E. Wert, economist, Federal Reserve Bank of Cleveland.

For the Board of Governors, Mr. Koch and Miss Susan S. Burr, associate adviser in the Board's Division of Research and Statistics, have given full time to supervising the work on the program, Mr. George Garvey, senior economist, Federal Reserve Bank of New York; Mr. Mitchell; and Mr. Brill have been in immediate charge of the three parts of the project. Each has had a group of System research staff associated with him in his phase of the study.

RALPH A. YOUNG,
Director, Division of Research and Statistics,
Board of Governors of the Federal Reserve System.

MARCH 31, 1958.

PART I

STUDIES 1–16

BACKGROUND STUDIES

[Studies in part I were prepared by economists in the Federal Reserve System and at universities or in other private organizations. Views expressed are those of the authors and do not necessarily reflect the views of the Board of Governors of the Federal Reserve Banks.]

PREFACE TO PART I

The purpose of the background studies is to analyze available knowledge bearing on the financial position and problems of small business. Much of the factual knowledge required for fully evaluating the subject has never been collected, and it was not the purpose of part I to fill gaps in basic information. Indeed, the background studies in the main reexamine and utilize existing information for whatever new light this may throw on the financial problems of small business. Gaps in the data which are brought into focus will be filled in some degree by parts II and III of the project.

In part I, critical areas of interest have been assigned to individual authors. Some contributors are scholars from leading universities and prominent research organizations; other are members of the research staffs of the Federal Reserve System. An extensive, topical bibliography on economic and financial aspects of small business for the use of the authors was prepared by Katherine McKinstry, economist, Federal Reserve Bank of New York. First drafts of papers were reviewed by other scholars and Federal Reserve staff members.

Each author speaks for himself within a zone of coverage suggested by a planning committee, which included Robert V. Roosa, vice president, Federal Reserve Bank of New York, chairman; Thomas R. Atkinson, senior economist, Federal Reserve Bank of Atlanta; and James B. Eckert, Chief of the Banking Section of the Board's Division of Research and Statistics. Thus the views expressed are not necessarily those of the Board of Governors or the Federal Reserve banks. The Federal Reserve System is deeply indebted to the authors for undertaking the assignments and completing their studies in the short time between October 1957 and February 1958, as well as to the reviewers.

Financial problems of small business must be viewed in relation to those encountered by businesses of other sizes, including larger business. They must also be considered in relation to the basic goals of growth and stability of the entire economy. Ideally, a wider range of topics should have been covered. This was possible to only a limited extent.

While the financing problems of small business have received more public attention since the war than most other small-business problems, it is by no means established that financial difficulties are more pressing than others which confront small concerns. Financing, production, marketing, management, and other problems of small business are all closely interrelated. Any significant and durable improvement in one area depends on simultaneous progress in related areas. This is one of the reasons why recently expanded activities of the Federal Government in the field of small business have involved assistance in such aspects as marketing and research.

The financial aspects of small business are those with which monetary authorities are most immediately concerned and which their staffs

are best equipped to study. Since limitations of time and manpower prevented an all-inclusive approach to problems facing small businesses, the background studies represent a compromise between the narrowly financial and other aspects. Several contributions present some of the broad considerations that are relevant in attempting to put the financing problems of small business into a proper perspective.

It was not feasible to include even a cursory review of foreign developments which would have shown the universality of the financial problems of small business. Nor was it considered desirable or necessary to cover the period before the end of World War II, partly because of an earlier comprehensive study of the subject sponsored by the Committee for Economic Development and written by A. D. H. Kaplan, one of the authors of the current studies. On the other hand, limiting the background studies to the recent period of credit and monetary restraint would have resulted in an undesirable foreshortening of the perspective.

Some information relating to earlier periods was used because of the dearth of recent factual data characterizing the field of small business. Much of this material is fragmentary or tangential. Information being assembled for part II was not available to authors. In some cases, authors drew on related material and analyzed by analogy, or even generalized on the basis of limited practical experience. Only in exceptional cases (as in studies by Anderson, Moore and associates, Schweiger, and Pickering) was it feasible to supplement previously available data by tabulations specially prepared for these studies.

Some of the main analyses and conclusions developed in the background studies are summarized in the introductory paper which also attempts to build some bridges in order to bring the individual studies into a closer relationship.

GEORGE GARVY,
Senior Economist,
Federal Reserve Bank of New York.

MARCH 31, 1958.

VOLUME I

1. OBSERVATIONS BASED ON THE BACKGROUND STUDIES [1]

INTRODUCTION

Part I is limited to nonfarm, nonfinancial businesses. There are many small banks, insurance companies, and sales finance companies. They have financial problems of a nature sufficiently different from those of small concerns in the rest of the nonagricultural business sector to warrant their exclusion from the background studies. Despite these exclusions, these studies do not relate to a homogeneous universe of firms that share in the main the same characteristics and confront essentially the same problems.

I. SMALL BUSINESS IN THE UNITED STATES ECONOMY

The financing (as well as other) problems of small concerns cannot be analyzed meaningfully for that all-encompassing complex universe commonly referred to as "small business." More insight can be gained by breaking the universe into its main components, and by recognizing that there may be as many variations among different kinds of small business, in different industries, as there are between the large and the small firms within an industry.

Indeed, the very universe with which this collection of background studies deals defies precise definition. Numerical estimates of the business population by three broad-size groups defined in terms of employment are summarized in the table below. The usual alternative definitions of small business include all of the firms in the first category and some or all of the second. However, any definition of small business using a single criterion of size leaves many questions unanswered.

No generally accepted definition of small business exists, and it is quite obvious that the same criteria cannot be used in different segments of the economy (see study by Stockwell, p. 150). Whatever set of criteria may be chosen, the resulting numbers are to a certain degree arbitrary; the resulting delineation of the universe is neither sharp nor unequivocal.

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[1] By George Garvy, Federal Reserve Bank of New York.

George Garvy, senior economist, Federal Reserve Bank of New York. Ph. D. Columbia University, 1951. 1941–43, member of the research staff of the National Bureau of Economic Research, New School for Social Research, and Cowles Commission for Research in Economics. 1943 to date with the Federal Reserve Bank of New York. Member of missions of the International Bank for Reconstruction and Development to Colombia, Nicaragua, and Panama. Taught at Columbia University, New York University, Economic Development Institute (Washington, D. C.), Centro de Estudios Monetarios Latinoamericanos (Mexico City). Author of The Development of Bank Debits and Clearings and Their Use in Economic Analysis, coauthor of Savings and the Problem of Inflation in the United States, The Economic Development of Nicaragua, and The Agricultural Development of Colombia. Editor, Studies in Income and Wealth, vol. 23. Numerous articles in professional journals.

Where does small business begin and where does it end? Indeed, the dividing line between independent professional practitioners and business concerns is at times vague. Usually, independent professional practitioners (the doctors, dentists, and accountants) are excluded even though many of them employ help, engage in business-type activities, and need to finance equipment. At the other extreme are concerns in which the owner is actually little more than an agent of the firm whose product or services he sells, and whose compensation is derived from a fixed gross margin on sales rather than from a fixed salary. Many gasoline stations operating with financial support from a major oil company are in such a position, as well as certain categories of distributors of other products and services. Yet the firms at this other extreme would be included in the usual enumerations of small business.

TABLE 1.—*Number of firms in operation by industry and by size, Jan. 1, 1951*

Industry	Number of employees (thousands)		
	0–99	100–499	500 and over
Mining	36.0	0.9	0.2
Construction	374.7	2.4	.2
Manufacturing	302.8	16.2	3.9
Transportation, communication, and public utilities	178.0	1.9	.8
Wholesale trade	266.3	2.0	.2
Retail trade	1,817.0	3.2	.6
Finance, insurance, and real estate [1]	325.1	1.5	.3
Service	730.4	2.3	.2
All industries [2]	4,030.4	30.3	6.6

[1] Most of these firms fall outside the definition of nonfinancial businesses.
[2] Because of rounding detailed figures do not add to totals.

Source: U. S. Department of Commerce, Survey of Current Business, May 1954, p. 23. Later data not available.

Most but not all small entrepreneurs derive the principal part of their livelihood from their business. A schoolteacher operating a resort gift shop during the summer vacation, and a retired couple running a motel to supplement their income are also part of the small-business universe.

When employment opportunities decline, some people attempt to make a living by starting a business even though they are not equipped to become entrepreneurs and would even prefer salaried employment. Should such "entrepreneurs for lack of alternatives" be treated on the same level as innovators who need capital to produce new, superior, or cheaper goods?

More important than the absence of a generally accepted set of figures on the composition of small business is its great complexity. Small business, however defined, encompasses many different economic, financial, and social situations which are sufficiently different to impose severe limitations on the broad characterizations often used in describing small business. Much of the confusion, and many questionable generalizations, encountered in discussions of financing (and other) needs of small business result from focusing on specific problems of certain types of small business and implying that they relate to the entire small-business universe. Typically, the plight of the

inventor who is unable to raise equity capital is discussed alongside a table showing that there are about 4 million small-business concerns. Yet, small manufacturing enterprises represent fewer than 8 percent of all small concerns in the United States, while growing firms which exploit new products or processes are only a small fraction of all manufacturing concerns.

Much of the literature and public discussion centers on small firms struggling to perfect, produce, and market new products. The bulk of small concerns, however, are engaged in routine operations in the distributive or service fields, or quite successfully manufacture items which, because of limited markets, high transportation costs, or absence of significant economies of scale, are quite profitably produced by small units. There is little doubt that the great majority of small businesses are going concerns which either have no genuine need for additional outside funds or are capable of financing their modest requirements from commercial banks or other financial institutions.

Clearly, public policy based on economic considerations cannot be equally concerned with all businesses that are small, nor should it be interested in promoting any concern merely because it is small. Some criteria are needed to identify the types of small concerns that are making a real contribution to the maintenance of competition and to economic vitality and growth, and to sort out any which may have little economic basis for special consideration, or which may even involve a clear uneconomic allocation of human, physical, and financial resources. This is one of the most difficult aspects of any public program of financial assistance, and clearly argues for an experimental approach until more experience is gained. In addition there may be social reasons for supporting and promoting certain types of small concerns that are not economically competitive (for example, businesses suitable for handicapped people), and whose support may even make possible a net economic gain over time.

The survival of small business

All economically advanced countries have developed from earlier societies in which production and distribution were carried out on a small, and often local, scale. The rise of the modern economy has thus involved, along with the absolute growth of output, the emergence and rise of large and very large units in production, distribution, and the services. This has necessarily been accomplished by some long-run decline of the relative share of small concerns in national output. As a matter of fact, in certain areas of our economy—and largely in those which have played the greatest part in making possible the large increase in real income per capita, such as electric power generation, railroad and air transportation, communications, and most of the so-called basic industries—large-scale units dominate while small concerns generally play an insignificant role.

Contemporary observers of the emergence of the large-scale production unit, and of the related rise of the giant corporation, have on occasion extrapolated the trend toward bigness, concluding that the days of the small enterprise were numbered. In a sense, the widespread concern with the plight of small business, and much of the antitrust legislation, apparently had its origin in the belief that the preservation of freedom and social mobility dependent to an impor-

tant extent on the maintenance of opportunities for independent business to survive and to grow.

Fortunately, there are solid economic reasons for believing that small business does fulfill a useful and necessary function in most sectors of our economy. Moreover, there is good evidence that on the whole it is fulfilling this function successfully and that, by and large, small concerns are holding their own. Many, of course, in industries where conditions are suitable, not only prosper but also eventually grow to impressive stature. To place this conclusion on solid ground, and thus to provide a proper focus for discussion of the financial problems and achievements of small business, some of the basic facts developed in part I are summarized below.

Neither the economies of scale, nor the financial power of large corporations, nor the emergence of the Federal Government as a huge purchaser of defense goods, nor technological changes favoring automation, nor the billions of dollars spent annually on advertising have reduced small business to insignificance, or even stifled its growth in most of the major sectors of the economy. As shown by Markham and Schweiger, the nonfarm small business population has grown continuously in numbers, with the exception of periods such as World War II when special circumstances prevailed. The telling fact is that by mid-1957 there were about 400,000 more—not fewer—independent small concerns than in 1948 by which time the highest prewar figure had already been far exceeded.

True, since total population, output, and all other relevant magnitudes of our economy also grew, the increase of the small-business population in relative terms was somewhat smaller than the absolute numbers suggest (as shown in Markham's table 3, p. 209). Despite the numerous adverse factors (some of which are discussed in Clark's study for manufacturing, but some of which also apply, in part at least, to other industries), small business was able to hold its own, and more, despite rather limited support from various Government loan and related programs (as evidenced in Arlt's study).

Perhaps equally, if not more, important is the fact that in each recent year as many as 380,000 new firms have been started, the overwhelming majority of them small business under any definition. The attractions and rewards of independent entrepreneurship must be varied and substantial, and the obstacles to entry, financial and otherwise, not so formidable and general as some have claimed. Independence of action and the opportunity to give full scope to one's varied abilities, not always afforded by salaried employment, are apparently intangible but real incentives for becoming an entrepreneur. The fact that the owner of a small business enjoys certain advantages (for instance, the possibility of treating as business costs certain expenditures which in effect raise his standard of living) is usually not adequately taken into account in analyzing the usual financial and accounting statements of a firm.

Not all of those who became entrepreneurs succeed in maintaining a foothold in the business world, and only a few ultimately graduate into the larger size business categories.[2] Therefore, the number of

[2] Some of the 380,000 new businesses involve 2 or more partners or original stockholders, while many of the more than 300,000 new owners to whom existing businesses are being transferred annually (see Markham, table 8) are also new entrepreneurs. The interpretation of statistics on the new business population is beset by a number of difficulties. For

business discontinuances is high (between 325,000 and 340,000 in recent years); these include not only failures, but also voluntary withdrawals for a variety of reasons. The net result is still an annual growth of the business population which has averaged around 50,000 since 1948. It appears that perhaps 99 or more percent of these newcomers qualify as small concerns.

It is against this overall survival and numerical growth that we should examine the relevance of small business financing problems. The available statistics—whatever their shortcomings and limitations—show clearly that, on balance, powerful forces are at work which continuously inject new, independent entrepreneurs into our economy and permit a remarkable proportion to succeed. At the same time these forces apparently also enable many of those who survive the initial hazards to continue successfully. What are some of these forces, as well as the financial and other obstacles, which they are continuously helping to overcome?

The background studies do not provide a catalog of the various factors that have permitted small business to adapt itself to continuous change, to survive, and—in many areas—to prosper. The ability and willingness of the financial system—despite all the limitations and shortcomings dwelt upon in several background studies—to provide the necessary funds must have ranked high, as well as the continuing ability of the economy to generate enough savings in the hands of persons willing to become entrepreneurs, to permit the entry of some 350,000 to 380,000 new concerns into the fraternity of small business in the average postwar year.

The nonfinancial factors contributing to this state of affairs seem to be numerous; in some cases they favor small business in general, and in others specific industries only. Suspecting that the latter might be the case, McNulty was asked to select several manufacturing industries characterized by the prevalence of small concerns and to identify some of the forces which favored their continuing success. His study probably could have been duplicated elsewhere within the manufacturing area as well as in other segments of the economy. Generalizing his findings and drawing upon additional evidence, one could list the factors which have favored the establishment and successful operation of small concerns (not only in the manufacturing field) somewhat as follows:

(1) The possibility of purchasing electric power in small quantities.

(2) The existence of markets for secondhand equipment (in particular in the light manufacturing and the service industries).

(3) The availability of standardized equipment (in particular for many types of retail and service lines), in some cases financed as well as installed by specialized firms.

(4) A transportation system permitting small shipments to be picked up and delivered at competitive costs.

(5) Growth of consumer holdings of durable goods requiring maintenance and repair services.

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instance, quite a number of new concerns are started by individuals who may have discontinued operating independent concerns not so long ago. On the other hand, mere transfers of business to new owners (see Markham, table 6, p. 212) are not counted as new business, but they may, and frequently do, involve individuals who enter business for the first time.

(6) Trade-in practices for consumer durable goods resulting in secondary markets that are mostly in the hands of small independent dealers.

(7) Efforts of manufacturers to market products or services through independently owned outlets protected by franchise and other exclusive rights (gas stations, automobile agencies, and restaurant chains such as Howard Johnson), frequently supported by national advertising, and in some cases through dealer financing, equipment leasing, and other forms of financial support.

This list could be extended and supplemented by a description of specific financial arrangements, some of which are discussed in the studies by Shapiro and associates and by Kaplan and Banner. It may suffice to sum up by saying that in addition to factors generally favorable to small business, particularly congenial conditions exist in certain lines. In lines where small concerns are prevalent, special financial and other arrangements tend to develop which are adapted to the specific circumstances of the industry. Such specialization may not be feasible unless a fairly large number of firms are operating in roughly comparable circumstances; it takes a market to create a new service.

A large number of obstacles must be overcome by the small concerns that survive and grow. Some of these hurdles in the nonfinancial field are discussed in Clark's paper. The financial obstacles are discussed in several background studies and are reviewed in the second part of this paper. Before turning to their examination, it seems appropriate to raise some important questions which underlie much of the public concern with the present status and future of small business: Why is our society interested in the survival and prosperity of small business? And what standards should be applied to evaluate the functions which small concerns perform in our economy, as well as to measure how well they perform them?

Role of small business in the modern economy

Our economic system is distinguished by its capability of providing a fairly continuously rising standard of living, while also keeping the benefits of increased real output fairly widely diffused. This encourages technical inventions and better ways of doing old things (requiring the assumption of risks) and distributes rewards in relation (although not necessarily proportionately) to effort. In brief, our economy is progressive, dynamic, and flexible. It also has some less desirable characteristics, of which the most conspicuous is its tendency to generate cyclical swings in employment. Closely related are the intermittent but frequent inflationary pressures which some claim are more than cyclical in nature.

How does small business fit into this scheme of things? What role does it perform in a growing, yet fluctuating, economy? How can we appraise the contribution of small concerns to its dynamic features, and to the minimizing of instability in terms of employment and the price level?

From among the studies of part I, a reasonably clear picture can be drawn of the positive functions that small business may be expected to perform. These can be appraised most effectively by answering the same question that is valid for all elements of our

economy: Is it efficient? No special criteria need or should be applied.

The record does not show that bigness and efficiency necessarily go together; Duesenberry's paper goes a long way toward explaining why. The plain fact is that economies of scale do not go on indefinitely as size increases, and in some industries they seem clearly to cease at a level which leaves considerable room for small concerns. Recognition must be given to the important distinction between economies of scale in production and similar economies in all other economic functions, from managerial talent to merchandising, and to financing. (See McNulty's study, p. 218.) Several studies suggest that small concerns may be at a disadvantage by not enjoying the economies of scale in their financial dealings (but Shapiro and associates discuss in their study how financial intermediation can pass on economies of scale to small concerns.) By and large, the extent to which small business can be, and actually is, competitively efficient differs from individual segments of the complex universe of small business.

It cannot be claimed, however, that all small businesses are making a positive contribution to our economy. First, some concerns in many lines are apparently managed by people who do not have the personal capabilities to survive as entrepreneurs in a competitive society. Other firms, because of location, poor products or services, or other reasons fail to make a profit—and could not make a profit even if they had access to unlimited funds. Many such retailers, operators of service concerns, or manufacturers, can remain in business only by failing to maintain capital or by paying themselves wages below the competitive level. When financing problems become important, they cannot be solved separately from all other factors, and putting the blame on inadequate financing is frequently merely an easy rationalization of personal and other shortcomings. For such marginal entrepreneurs, the problem of shifting into other economic activities is usually complex and includes the various sociologcial elements which are always present when resistance to mobility is involved.

Economic characteristics of small business

Even after identifying situations which involve essentially the remaining healthy small concerns in a vigorous competitive economy, we find varying economic characteristics that affect their financing. A number of general economic types of small businesses emerge from the background studies.

The overwhelming bulk of small business is engaged in what may be called both competitive and routine business. It operates successfully because fairly small units are efficient or because diseconomies of scale, in the use of capital, labor, or management functions, begin before units grow too large; this is the normal case. Small businesses may be routine in the sense that they follow beaten tracks, use tested methods, produce or distribute accepted products, and use patterns of operations and management, including financial management. which are traditional in their fields.

Several particular types of concerns belong in the broad category of routine small business. There are customer-oriented shops producing highly differentiated goods on special orders. Know-how is usually the greatest asset of such concerns and their financing needs are often modest. There are also "satellite" concerns deriving much

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or all of their business from subcontracting or performing services for a few large firms; in such cases, financial problems are often simplified by progress payments, or the direct supplying or financing of raw materials, or similar arrangements.

While the routine businesses in all their forms generally do not enrich our life with revolutionary innovations, they have the advantage of providing an assured and more or less comfortable and steady livelihood for millions of families. They are the bread and butter of thousands of small banks; their large number, standardized operations, and long experience provide the basis for what, without disregarding the individuality of each case, might be called a routinized type of credit analysis. When further on we examine credit availability, we shall keep in mind that by their sheer numbers, and because of established banking relationships (and, when applicable, reliance on nonbanking sources of credit) these firms weigh heavily in all statistical surveys and averages. For the most part, the financial needs of these firms—in terms of numbers clearly the predominant segment of small business—are normally met; but any one of these firms, like most individuals, may feel at times that access to a little more credit would be helpful. That condition is probably mainly a reflection of the universal extensibility of human desires, however, and not necessarily an indication of an economically defensible unmet need in view of the necessity that any economy always faces of allocating scarce resources among many competing wishes and demands.

At the other extreme is the smaller number of pioneering small concerns which are responsible for developing and introducing many new products and processes. Many of them start just with an idea—but little or no experience and, in particular, no financial experience. They may be manufacturing concerns starting out in the proverbial garage, or service, or distributive organization. Many retail and movie chains, for example, which have revolutionized the fields of retailing and entertainment, started out as one-man operations.

For our purpose it does not really matter what proportion of the important inventions and discoveries originated in the laboratories of the big corporations and what in the basement of the lone inventor; it is enough to know that the lone wolf has made a substantial contribution to technological and material progress. This type of small business makes a positive contribution to the advance and dynamism of the economy. This segment of small business undoubtedly deserves particular attention, support, and stimulus, but it is essential to recognize that in sheer numbers (even including all the false starts, quacks, and mere adventurers) the segment is very small, compared with "routine" small business.

In new industries, a relatively large number of concerns trying to capitalize on new inventions, machines, or processes emerge within a short period. Some evolve, through growth and mergers, into large concerns. Others survive as small enterprises. Because of their growth and profit potentials firms of this type often can obtain equity capital more easily than concerns engaged in more routine operations. Much of such small business serves as a seedbed of technological progress, even though many concerns which make a significant contribution do not survive, or do not remain long in the small business category.

Between these two extremes, there is a wide variety of other types of small business. Some of the more common types operate along routine lines and, because of the exceptional ability of their owners or managers, or because of a sudden broadening of the market in which they operate (a situation which is not unusual with our continuous shifts in population) are able and willing to expand rapidly, provided they can obtain the necessary financing. There are also part-time businessmen, whose profits are not entirely unexpected, but perhaps not always the main reason for staying in business. The desire to be one's own boss and other noneconomic considerations are usually important in these latter cases.

In the first case, it is likely that growth potentials will usually be recognized by the regular sources of financing of such concerns, so that there may not be as great a need for special financing facilities for growth concerns in established industries as for new enterprises of a path-breaking character. No doubt these concerns face other serious obstacles, such as those arising from the tax system, from difficulties of adapting patterns of management from a one-man operation to a viable organization (touched upon in Clark's study), and from other sources. As to access to loan or equity funds, however, their circumstances are clearly not the same as those of the pioneering concern which has no record of successful operations, and no demonstrated earning capacity, but frequently an insatiable hunger for funds.

The fringe of part-time concerns is sizable, but presumably provides little employment except for their owners. Though a close economic calculus may not apply to their own operations, it does and should apply to lenders when dealing with them. It is reasonable to assume, however, that many businesses do not really expect to grow, and have few economically justified needs for outside financing.

The large but amorphous universe of small business includes a variety of specific situations in addition to those mentioned above. Financing problems of small business vary not only in relation to industry affiliation, but also to market orientation and prospects for growth. The background studies, building on the existing body of statistical data, were not able to proceed far in differentiating among all significant categories of small business, except along broad industry lines. If more factual data were available to isolate and study the financial position, for example, of "pioneering" as contrasted to "routine" business, one would be in a much better position to identify financing needs and gaps and to make specific suggestions for any possible needed remedial action. It is hoped that real progress of this kind can eventually be made by the studies conducted in part III of the small business financing project. But even though the various findings of the individual studies that follow cannot be categorically applied to the main "functional" categories of small business, they permit the formulation of some principles that are useful in discussions of small business financing problems. This is undertaken in the concluding section of this introductory paper.

Small business and competition

In a free market economy, maximum efficiency in the use of resources is achieved through reliance upon the market mechanism for allocating resources. When the free flow of resources between alterna-

tive uses is interfered with, or when changes in demand patterns do not effect adjustments through differential price changes, the economy is likely to fail to achieve its fullest potential output. Conversely, when market institutions, including those in the credit and capital markets, do not function properly and smoothly, the resulting frictions and imperfections are also likely to have adverse effects on the economy as a whole.

Restraints on free competition do not usually originate with small concerns, but with those which have substantial market power. Also, large concerns are in a better position than small enterprises to overcome whatever imperfections may exist in the financial mechanism. Thus small business has a definite stake in the smooth functioning of the market system—and so has society as a whole. Small business performs an important function in preserving the competitive character of our economy (as more fully discussed in Duesenberry's study). Since it is the declared objective of public policy to foster free competition (see study by Wood, p. 306), the efforts to implement that policy find a natural ally in small business.[3]

Not all types of small business are equally effective and equally important in making competition work. As a matter of fact, some of them thrive on exploiting a protected market. Some seem to lose sight of their economic raison d'être by asking for protection of a sort that destroys the competitive features of small enterprise by securing for them a sheltered, though limited market. Others can only operate successfully because they cooperate with (and therefore are frequently financed by) large concerns striving for market domination. Still others operate in fields where there is little danger of monopolistic domination. But a vital minority, mostly in the manufacturing and extractive fields, fulfills a particularly constructive function in challenging various forms of market domination by bringing out new products, using new materials, perfecting new processes, and finding new sources of supply. This category of small concerns performs an especially useful task of keeping big business on its toes and of stimulating technological progress. Without this leaven in the loaf, quite a number of discoveries, inventions, and improvements would not have eventuated rapidly in new and better products.

Effects of changes in demand and environment

In our economy, progress is the result of change as well as of organic growth, and all businesses, small or big, must be flexible in adapting to changing conditions. The important question in the present studies is whether small concerns are in an inferior position to obtain funds, whenever additional or continued financing is needed to make the changes required to survive and to prosper.

Changes in environment extend to financial structure and financing practices. In examining the sources of funds for small business, Shapiro and associates show that new institutions and techniques have come into existence to meet at least some small-business needs. Indeed, our society is to some extent "institution elastic," and whenever new and important needs arise, new institutions or practices gen-

[3] The Declaration of Policy in the Employment Act of 1946 includes this phrase: "* * * to coordinate and utilize all its [the Federal Government's] plans, functions, and resources * * *, in a manner calculated to foster and promote free competitive enterprise and the general welfare, * * *."

erally come into the picture to meet these needs. The questions are, whether such adaptation of the financial system takes place rapidly enough, whether the new institutions and procedures meet a significant part of the needs, and whether there are certain types of needs which no private institution appears willing or able to meet.

Technology, market organization, the rate of population growth, residential patterns, structure of demand for products and services, and Government policies seem to be the most important influences that are continuously changing the environment in which small business operates. Some of these developments have been favorable to small concerns, others not. In this set of studies, an effort has been made to investigate some of these developments. As was expected, it is easier to identify than to quantify some of the more obvious forces at work; but it is even more difficult to conclude unambiguously what their effect has been on balance.

Changes in the demand for final products often affect small business, first, because the share of small concerns differs from industry to industry, and second, because new (rather than increased) demands are often initially met by new businesses. Such concerns tend to be small, at least in the initial stages. But, as Sheahan points out, this is not always the case. The production of high fidelity equipment, for example, has not remained the product of small customer-oriented concerns. Once substantial demand for a new product is created, large, established firms move in to meet the growing demand (perhaps also acquiring some of the independent pioneering firms), while a few of the small firms grow rapidly to become leaders in the new field. For the latter, as Duesenberry puts it, small business was only a stage through which new firms pass; frequently, the successful small business ceases to be small, either by growing or by selling out to big business.

Within the area of private demand, changes in the patterns of both production and consumer demand affect small business. Changes in patterns of production may result in greater or lesser reliance on subcontracting and also may create more (or fewer) opportunities for firms providing services to business. There may be a connection between the rate and breadth of technological change and cyclical fluctuations in output, on the one hand, and the opportunities for small business to provide intermediate products and services to other businesses, on the other hand. This possible relationship, as well as other important interrelationships between small and big business, were not explored in the background studies.

While Sheahan discusses some general aspects of the significance of changes in consumer demand for small business prospects, this problem is far from exhausted. Again, it is easier to indicate the existence of specific interrelations than to assess their relative significance. Sheahan concludes that, on balance, an increase in the real income per capita (and the related rise of what by some is called "discretionary spending") tends to increase the demand for individualized and quality products which small business is particularly well equipped to supply. Perhaps that is an important part of the explanation for the apparent fact that, in terms of its relative share of total economic activity, small business has prospered during the past decade.

Similarly, changes in the geographic concentration of population, such as the move from the overcrowded "core" cities toward suburban

areas, are likely to work on balance in favor of small business. The entire growth of the urban population since 1940 is accounted for by the increase in the population of metropolitan areas outside of the main cities which they surround. We know of no studies which show convincingly that suburbia offers better opportunities per 1,000 population for small retail and service establishments than do urban centers, but the very change in the geographic patterns of consumer purchasing have offered new opportunities to the dynamic entrepreneur able to seize new opportunities, while it has worked hardships on established units—small and big—in the declining shopping area.

It would seem that economic and sociological factors associated with the movement of the population into suburban communities is likely on balance to profit small business. The relative increase in the number of better educated, larger and more prosperous families living in smaller and more scattered communities is likely to provide more opportunities for small suppliers of goods and services. Our ignorance in this area, however, remains great. Sheahan, for instance, points out that the increase in leisure time may well be less rapid in the future than it was in the past. This finding still does not answer the question whether trends in the use of leisure time tend to create new opportunities for small concerns. Still other aspects of forces affecting consumer demand—advertising and brand acceptance, among the more important ones—are relevant but equally elusive.

Perhaps the background studies only establish the fact that all signs do not point in one direction. The growth of giant units in production and distribution, the incessant impact of mass advertising media, the national penchant for imitation and uniformity, and other forces, which some thought would condemn small concerns to virtual extinction, are being counteracted by an equally impressive array of forces favorable to small units; as a result (as Markham indicates) the record shows that small business is not losing ground relative to large concerns.

Small business is usually in a good position to respond to outside stimulus and changing conditions. In doing so, it makes an important contribution to the flexibility and adaptability of our economy. A byproduct of this readiness to change, however, is that there are many discontinuances as well as wrong starts, and many failures as well as many profitable and successful ventures.

II. THE FINANCIAL PROBLEMS OF SMALL BUSINESS

Financial needs

Financial needs vary among different categories of small concerns. No generalizations will hold for all—yet most of the statistical studies on the financial status are, at best, subdivided among businesses only in terms of classification by size or industry. The limited stratification of available data imposes several limitations on their interpretation. Averages are likely to be dominated by categories with the largest numbers, thus submerging the problems of some relatively small, but functionally important, components. One can learn something about the problems of pioneering firms by looking at data pertaining to new firms, but one should recognize that the category of new firms is likely to include hundreds of new grocery and candy stores and dozens of

garment shops and sawmills for every electronics factory. Part III of this project is expected to fill some of the gaps in presently available knowledge.

Evidence on the adequacy of financing, and even on the practices of financial institutions, is fragmentary and in some cases indirect. From the evidence summarized in several background studies, the following picture emerges.

The financial needs of small business are complex. Frequently, small concerns are able to identify or to quantify the nature of their needs in a general way only. While the largest segment of small business, retail trade, needs mainly short-term credit, most of the unsatisfied demand of small business in general, as reflected in past surveys, is for long-term loans, equity, or equity-type credit. This demand arises presumably from concerns that are able and willing to grow. It is usually the small business with ambition to grow, and to grow rapidly, that is most aggressively seeking additional funds.

About two-thirds of the small firms are in retail trade and service industries. In these lines working capital needs, some of which are of a seasonal nature, are apparently fairly adequately taken care of by commercial banks, business suppliers, and specialized financial institutions, such as sales and other finance companies. An additional fifth of small businesses is accounted for by wholesale trade and construction, where the short- and medium-term credit facilities of existing institutions (in the case of construction this includes the assistance from existing Government programs) seem to be adequate, by and large; obviously, the volume of funds actually made available fluctuates depending on the general credit situation.

The core of the small business financing problem seems to be in the manufacturing area, which accounts for less than 8 percent of the number of small concerns, whatever criterion of smallness is applied. In some segments of the service industries, as well as the mining, construction, and trade fields, small concerns have financing problems resembling those of growing small manufacturers. The unsatisfied demands that appear to have greatest economic justification are mostly those of new firms or concerns with new lines or processes. Such firms also need working capital, but their greatest need is for investment funds to finance plant and major equipment installations.

As a matter of fact, they seem, really, to need to broaden their equity capital structure. Their reluctance to seek outside equity capital, their desire to finance fixed investment through long-term loans, and, also, their difficulty in making contact with equity sources account for one significant aspect of many small-business financing problems. Many small entrepreneurs seek permanent funds, but are not willing to share control. They want venture capital on a loan basis. Some feel that they can obtain equity capital only at a cost which exceeds their profits potential. Perhaps the range of needs includes a hybrid financing instrument, partly (long-term) loan and partly equity, such as the convertible debentures, developed to a high degree in recent years by many large, publicly financed companies.

One particular financial need of small business, which is not specifically treated in the background studies, is the problem faced by heirs of owners or part owners of unincorporated concerns in raising funds to pay estate taxes. This has been recognized as a significant hazard by the Cabinet Committee on Small Business which, in its

progress report of August 7, 1956, made specific recommendations for dealing with it by a change in tax legislation. In Great Britain, steps in this direction have been taken by creating special institutions (both governmental and privately sponsored) to provide funds for the payment of estate taxes to facilitate continuity of ownership in family-held and other small concerns.

Cost of lending

The smaller firms, particularly in manufacturing, are frequently the newer ones, because it takes time to grow. They typically specialize in one or a few lines, because it takes capital (and a lot of other things) to diversify. Their managerial practices are frequently poor, and their internal managerial structure deficient; they are frequently one-man operations (see Clark's study, p. 322). To the potential lender or investor, this often appears to be evidence of "no demonstrated earning potential," "lack of experience and spotty performance," or the increased risks inherent in specialization. Add to this (1) the great variability of actual results among concerns which seemingly had even chances at the starting line; (2) the reluctance of lenders to assume risks when the probability distribution of future profits is exceedingly one-sided, with many likely to show losses and only a few likely to show appreciable profits; and (3) the limited ability of small concerns to absorb even those losses which arise from mathematical chance (as stressed by Schweiger), and it appears that small business is likely to have a number of financial problems attributable to size alone.

Furthermore, loans to small concerns are, on the average, small. The relative cost of lending tends to be inversely related to the size of loan (although there is little information available on this point), since investigation and administration costs do not decline substantially as the size of loan declines, and the risk costs (potential losses) rise as loan size falls. Finally, since rejection rates tend to be higher for smaller concerns (because, on the average, they represent poorer risk and, also, because more of them are new customers and need to be investigated thoroughly), the average cost per loan made (including the share of costs for loans rejected) is higher than for credit extended to larger concerns, among which established firms are more prevalent.

This conclusion is supported by the fact that the number of formal loan applications received by the Small Business Administration (SBA) (Arlt, table 4, p. 262) and by the various State development credit corporations (Anderson, appendix, table B. p. 354) was more than double that of loans approved. Indeed, the cost of screening acceptable risks among small, and, in particular, new concerns, is high, as are the service costs. The analysis of SBA costs and revenues by Arlt (table 8, p. 272), for example, suggests that, even without making provision for loss, loans below $20,000 do not yield a net return. Provision for losses is, however, a particularly important element of cost in lending to marginal risks. (See secs. 2 and 7 of study by Moore and associates; available loss ratios for several Government business-loan programs are sumarized in Arlt's table 11, p. 277.)

The way in which risk and cost elements are reflected in available data, which are fragmentary and indirect, is reviewed in the study by Moore and associates. They found that small concerns, typically, experience a greater incidence of financial difficulty than large firms,

a fact recognized by credit-rating agencies and reflected in the commonly used financial ratios. The evidence on the predictability of losses presented in the Moore study suggests that lenders adopt somewhat lower credit standards in lending to small concerns and that there is a close correlation between loss ratio and size of loans.

While the findings of Moore and his associates do not extend to the significance of the individual contributory factors, the evidence presented, that lending to small concerns is more risky and more costly than lending to the larger concerns, is a suggestive introduction to the problem. Moore also shows that lenders tend to charge higher interest rates (and otherwise to increase their revenues from small-business loans) to cover the additional risks and costs incident to such lending.

Two questions emerge: Is there an area of credit needs in which charges properly calculated to fully cover costs (and to yield the customary return on funds used) are so high as to deter a significant group of potential borrowers? Are there any legal limitations which make it impossible (even with the devices used to avoid such limitations) to charge rates commensurate with risks?

On the first point, the background studies did not uncover any comprehensive evidence. It seems quite possible, however, that there are some potential small-business borrowers which simply are not profitable enough to pay the charges which lenders would be obliged to make if they covered all their costs and netted a return on capital. The second question could be answered only adequately by a State-by-State study of applicable legislation and prevailing practices. Evidence presented in part II suggests, however, that banks, and, possibly, certain other lenders, tend to have an effective ceiling on interest rates despite risk differentials and, probably, below-legal maximums. These lenders tend to avoid raising their interest rates to the point where they would cover the more unusual varieties of risks. They may feel that businesses who cannot borrow under the prevailing conventional rates must be outside the zone of acceptable risks, or that not enough borrowers would be available to support a specialized type of financing, designed with unique protections to cope with the extra risk.

The high cost of lending to small concerns, the reluctance of most financial institutions to assume losses (even when they are averaged out by higher than normal earnings on nondefaulted loans), and such other elements as the managerial supervision involved in small-business lending, taken together, seem to have resulted in some degree of imperfection in the financial mechanism. How serious this may be is difficult to judge on the basis of the background studies. Probably such imperfection differs a good deal with the type of institution and, also, geographically. But there is little evidence of any systematic or regular pattern of imperfection, except perhaps for the borderline, long-term capital area.

There is considerable evidence that the development of term-lending and installment-loan techniques by commercial banks and commercial finance companies has greatly benefited small concerns. But there is also some basis for inferring that these facilities have not become fully available throughout the small-business sector. Term loans provide an important source of production capital, especially for rapidly growing

firms. Yet prudent management and established credit practices require that such debt should not be out of line with equity capital. Rapidly growing firms, in particular, may seek equity funds which the banking system is incapable of providing, although individual bankers may be in a position to steer their customers to investment firms or other sources of such funds, including individual private investors. And there are frequent suggestions that a lack of equity money is the principal deterrent to more profitable operations, and expansion, for many smaller concerns.

Sources of outside intermediate- and long-term funds

Probably the most important problem of small-business financing concerns the availability of long-term loan-and-equity capital. Several aspects of this problem, as developed in the various background papers, have been already mentioned. One aspect that is of particular importance to small corporations is explored by Pickering, who shows what major categories of expenses account for the relatively high costs of flotation for small security issues.

The flow of savings has experienced significant changes since the great depression, with an increasing proportion flowing into investment through financial intermediaries. Life insurance companies and other large institutional investors are limited by legislation in the choice of their investments. Where they can exert judgment, they have shown an understandable preference for investment in large blocks and for securities enjoying active national markets. The mutual investment funds, which have experienced great growth since the thirties, as a rule apparently prefer the same general types of investment. The same applies to an even greater degree to personal trust funds, which have grown rapidly in recent years. Applicable legislation appropriately sets a premium on conservative management by bank and other trustees and offers no reward for risk taking. An even more recent development has been the rise of private pension funds which, for reasons of administrative cost and trusteeship, again tend to prefer the highest grade stocks. None of the financial intermediaries into which the bulk of personal savings is channeled has any particular incentive to seek out the riskier investments or to invest in small amounts or in small concerns, although (as shown in the studies by Schweiger, and Shapiro and associates, and in pt. II) insurance companies are making long-term loans to small concerns, mostly on mortgages.

The fact that institutional investors receive the bulk, and probably an increasing proportion, of personal savings is only one of the relevant factors. The same tax laws which tend to channel savings into financial intermediaries also favor capital gains as compared with regular income, thus making equity investments attractive to individuals anxious to maximize their after-tax income. Some evidence of the importance of tax considerations on equity investment is developed in part II. Yet there may well be imperfections in the existing institutional arrangements for providing outside equity capital to small business, as well as in the information available to potential investors and seekers of equity capital, and in the communications between the two groups.

The only area in which substantial action has been taken to improve the access of small concerns to outside funds involves intermediate

credit. On the national scale, as discussed in Arlt's study, the lending programs of the Federal Government before 1953 were not especially designed to aid small business, although small concerns benefited from several such programs. By their emphasis on participations with private lenders, these programs have made a significant contribution toward developing term-loan lending by commercial banks, thus improving the access of small business to intermediate-term credit. With the creation of the Small Business Administration, direct Government lending to small firms, along the lines of lending assistance given by its predecessor, the Reconstruction Finance Corporation, was put on a more permanent basis.

Current Government business loan programs, centered on the SBA, but also involving the Veterans' Administration (VA), are essentially limited to the provision of intermediate-term credit for working capital purposes. They do not provide equity financing. While they have broadened intermediate-term credit facilities for both creditworthy and marginal concerns, measured quantitatively, Government financing of small business has not been large. At the end of 1957, the combined loan and commitment total for SBA and VA was equivalent to less than 4 percent of small-business loans actually outstanding at member banks a few months earlier.

The lending activities of development credit corporations created in recent years in five New England States are limited to intermediate- and long-term credit, extended predominantly to small manufacturing business on a somewhat more risky basis than available from conventional lenders. Here, too, as pointed out in Anderson's study, the volume of lending so far has been small. As of the end of 1957, it was of a magnitude of about 2 percent of small-business loans of commercial banks in those States.

Neither the SBA nor the State development credit corporations make loans to new business. In financing small concerns which exploit new inventions and ideas, there is always the problem of determining in each case the prospects of success, whether the promoters of the new ventures are capable of developing into successful businessmen, and what sort of financing the prospective earnings justify. Available evidence indicates that communication to the lender or investor of needed facts is a problem. Experience of lenders and investors in working out these difficult appraisals suggests that the costs are large and the risks of mistakes and misjudgment are high.

Concluding reflections

As suggested earlier, perhaps it will never be possible to determine, on the basis of statistical evidence alone, the nature and extent of existing imperfections and unfilled needs in the financing of small business. The notion of need itself is elusive and to a certain degree unverifiable. As pointed out in the Kaplan-Banner paper, a businessman is unlikely to express a need for what he knows from experience to be unavailable. Nor does it seem possible to define adequacy in purely operational terms. A try at defining the criteria for determining adequacy on a theoretical level brought one author (Guttentag) to define adequacy in terms of equitable treatment of lenders of all sizes. Equity and adequacy are not the same thing, however; equity may be appraised in relation to other competing units, while adequacy should probably be measured in terms of the fulfillment of

some overall goal. And individual lenders can scarcely be expected to have the knowledge, ability, or desire to fit each case into a scale for measuring adequacy in national terms.

It does not seem satisfactory, either, to transform the discussion of adequacy of financing into one of a concept of "need." Need to do what? It does not really help, in actual cases, to say that financing needs are justified up to the point where expansion ceases to produce profits at the margin. The lender and the borrower would rarely agree on the point where such a margin would be reached, nor upon the degrees of risk involved in pushing to that point. Nor can the problems of risk and equity ever be completely resolved by statistical research. The shape of risk and cost curves at the frontiers of lending, and the probability distributions involved, are likely to be such as to produce divergent conclusions from independent experts. There is some evidence in the background studies, however, that there is an unfilled margin, perhaps a rather thin one, between the volume of funds available to small concerns in general, and to new firms in particular, and the volume that could be put to use without prohibitive risk. It is also possible that this margin varies with changes in credit and business conditions.

Perhaps the best help for small business at the present stage of economic development would be the maintenance of an expanding, reasonably stable economy, with personal incomes rising. This is not inconsistent with the desirability of broadening the financial facilities available to small business, but it suggests that the net contribution to small business to be expected from such facilities would be relatively minor compared with the more generalized effects of the maintenance of all-around business prosperity.

If interpretation of material presented in the background studies is borne out by other evidence and analysis, several basic questions face those who determine public policies with regard to the financing of small business. In a free-enterprise economy who should be expected to provide venture capital? Are there undue risks, for the economy as a whole, if Government is brought into the supplier's role? What criteria should be used in determining who should have access to pools of venture capital? Should loans involving higher risks (probably an inescapable attribute of new ventures, at any rate) carry charges fully covering such risks? If society is to share part of the charge for the cost of investigation, or part of the risks, what kind of institution, public or mixed public-private, should provide long-term funds to high-risk borrowers? Since the cost of lending tends to vary in inverse proportion to loan size, are there defensible social and economic reasons why, in a competitive enterprise economy, interest charges should not reflect such higher costs? If loans are to be extended to certain categories of small borrowers on public policy grounds at a cost that does not cover the full cost and risk premium, who should bear the ultimate cost of the subsidy, and how should the degree of subsidy be determined? Finally, if it is considered desirable to make subsidized loans, or even to provide equity funds to specified categories of small concerns with no subsidy involved, what should be the principles of selection in order to avoid favoritism or to guard against arbitrary decisions?

These questions are raised not to imply that subsidized loans or equity funds supplemented by using Government funds or guaran-

ties are necessarily inconsistent with a free enterprise system, provided the subsidy element is clearly indicated and accepted as such. As a matter of fact, quite a number of business firms extend loans at nominal charges to their customers, distributors, or employees with a view to providing specific incentives or compensating for disadvantages. There are also precedents for subsidized loans in other areas of Government-sponsored credit.

In examining the existing financial situation of small business, as well as in appraising proposed programs to assist small business in meeting its financing needs, it is essential to keep in mind a basic fact that underlies the allocation of resources in a free economy: real capital, as all other real resources, is scarce. The allocation of financial resources that give command over real resources involves some elements of rationing, and that must always be so. To maximize potential output in a freely functioning economy, such allocation must be guided by the prospective profitability of alternative uses of available resources. In a dynamic and growing economy, the number of entrepreneurs who expect to be able to use additional funds successfully is likely to exceed, most of the time, the actual capabilities of the economy as a whole to provide the corresponding real resources. This is why, periodically, the economy runs into periods of overconfidence and overinvestment.

A properly functioning financial system should allocate financial resources according to the potential profitability of their use, without regard to the size of the receiving unit. The process of allocation must, nonetheless, involve the peeling off of successive layers of less efficient seekers of funds. It is in this way that the economy can best limit the volume of funds channeled into new investment to the amount of real resources available. Even when this process of selection meets all conditions laid down to assure equality in treatment, as long as demand (and ambitions) exceed the resources available, there will be a variable fringe of unsatisfied demands. It should be the responsibility of public policy to keep the process of allocation from being disturbed or distorted by the exercise of monopoly powers or by imperfections in the financial mechanism. But public policy can neither aim nor hope to find ways or fulfilling all unsatisfied demands.

2. WHO FINANCES SMALL BUSINESS?[1]

In this paper the main types of lenders who provide funds to small business and their modus operandi are examined. An attempt is made to convey some sense of the importance of these "institutions" relative to each other and to the overall financing of small business. Small business is defined here to include firms with assets under $250,000. Where data are not available in this form, references to small business are to the smallest firms for which information is available. The discussion covers the more important forms of interbusiness financing, the commercial banking system, life-insurance companies, and the variety of forms of financing by commercial finance companies and factors.

To answer the question of who finances small business, ideally it would be necessary to have detailed balance sheets of the small-business universe broken down by legal form of business organization and by industry. In addition, it would be helpful to have this information over a period of years to facilitate conclusions about structural changes in the financing of small business and the impact of changes in credit conditions. Unfortunately, such data do not exist, and it is necessary, therefore, to use those fragmentary sources of information which are available in an endeavor to shed as much light as is possible on the question.

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Seymour Friedland received his doctor of philosophy degree from Harvard University in 1955, his master of business administration from Boston University in 1951, and his bachelor of science degree also from Boston University in 1950. He is presently an assistant professor of economics at Boston University, having taught at Harvard University, Massachusetts Institute of Technology, Clark University, and Middlebury College. He has published articles dealing with the growth and turnover of large firms and the impact of regional credit corporations on small firms. He has also testified on small business problems before the Select Committee on Small Business of the United States Senate and before committees of the Massachusetts Legislature.

Eli Shapiro, class of 1936 at Brooklyn College, obtained his doctor's degree in economics at Columbia University and served on the staff of Brooklyn College prior to World War II. From 1946 to 1952 he was successively assistant, associate, and professor of finance on the staff of the School of Business of the University of Chicago. He also served as editor of the Journal of Business of the University of Chicago and as a consultant to the Committee for Economic Development. In 1952 Mr. Shapiro joined the staff of the newly created school of industrial management at MIT as professor of finance and from 1954–57 served as associate dean of the school. Professor Shapiro is presently engaged in a study of the postwar capital markets for the National Bureau of Economic Research and is a consultant to the International Cooperation Administration, Joint Chiefs of Staff, Institute of Defense Analysis and Office of European Economic Cooperation, as well as various business firms. In 1957 he received a Ford Foundation Faculty Fellowship to carry on research into the role of the nonfinancial corporation as a financial institution. He is the author and coauthor of several books on money and banking and finance and has written extensively on business finance.

Dr. Shapiro wishes to acknowledge his gratitude to the Ford Foundation for a faculty fellowship which is enabling him to study the role of the nonfinancial corporation as a financial institution.

FINANCING SMALL BUSINESS

While we lack adequate statistics to review thoroughly the differences in financing practice by size of firm, it is possible to examine the existing piecemeal information and gain some broad insights into this problem.

Financing patterns by size of corporation

The Statistics of Income provides summary data on the credit sources available to small corporations. The liabilities and net worth of all nonfinancial corporations and of those with assets under $250,000 for 1954 are shown in table 1.[2] The accounts payable of the smaller concerns, most of which are trade payables, were $5.5 billion; notes payable, which include various liabilities in addition to bank loans, came to $3.7 billion; bonds, notes, and mortgages payable with maturities of more than 1 year were $5.8 billion; and other liabilities amounted to $3.5 billion. Short-term sources of funds consisting of notes and accounts payable were twice as important relative to assets for small corporations as for all corporations.

TABLE 1.—*Liabilities and net worth, all and small nonfinancial corporations, 1954* [1]

Item	All sizes		Assets under $250,000	
	Amount (billions of dollars)	Percent	Amount (billions of dollars)	Percent
Accounts payable	38.1	8.2	5.5	15.4
Notes payable	23.1	4.9	3.7	10.5
Bonds and mortgages payable	90.7	19.5	5.8	16.1
Other liabilities [2]	68.3	14.6	3.5	9.8
Net worth	247.0	52.8	17.2	48.2
Total liabilities and net worth	467.2	100.0	35.7	100.0

[1] Excludes banks and insurance carriers.
[2] Other liabilities include reserve for estimated expense, prepaid income, accrued expenses, and IRS "Other liability accounts."

Source: U. S. Internal Revenue Service, Statistics of Income 1954, Pt. II; Corporation Tax Returns.

Balance sheets of manufacturing corporations classified by size of assets are also published by the Federal Trade Commission-Securities and Exchange Commission in their Quarterly Financial Report of Manufacturing Corporations. As shown in table 2, small manufacturing corporations are almost twice as dependent on current financing (bank borrowing and other notes and accounts payable) as are all manufacturing corporations.

[2] Latest date for which information is available.

TABLE 2.—*Liabilities and net worth, all and small manufacturing corporations, fourth quarter, 1955*

[Percent]

Item	All sizes	Assets under $250,000
Short-term loans from banks (original maturity of 1 year or less)	2.5	3.9
Advances and prepayments by U. S. Government	1.2	0
Other notes and accounts payable	8.3	21.7
Federal income taxes accrued	7.0	2.6
Instalments on long-term debt due in 1 year or less:		
(*a*) Loans from banks	0.2	0.4
(*b*) Other	0.4	1.0
Other current liabilities	4.1	4.7
Total current liabilities	23.7	34.5
Long-term debt due in more than 1 year:		
(*a*) Loans from banks	1.5	1.7
(*b*) Other	9.2	9.3
Other noncurrent liabilities	0.9	2.0
Total liabilities	35.2	47.5
Total stockholders' equity	64.8	52.5
Total liabilities and stockholders' equity	100.0	100.0
Total (billions of dollars)	190.0	5.3

Source: U. S. Federal Trade Commission-Securities and Exchange Commission, Quarterly Financial Report for Manufacturing Corporations, 4th Quarter 1955, table 5, pp. 18–19.

No statement of sources and uses of funds exists for corporations of different size, but it does exist for the postwar period for all nonfinancial corporations and for approximately 300 large corporations, accounting for roughly one-third of all corporate assets. Thus we can compare the sources of funds of the 300 large corporations and of all other corporations excluding the 300 large ones.[3]

In the period 1946–55 the large corporations derived approximately 63 percent of their financing from funds generated internally (table 3). By contrast, corporations excluding the 300 large ones obtained 55 percent of their funds from internal sources. Capital consumption allowances supplied approximately 32 percent of all funds for the large corporations in comparison with 28 percent for all corporations excluding the large ones. Retained earnings supplied 31 percent as against 28 percent of funds in these respective size classes.

This situation necessarily resulted in greater use of external sources of funds by the group of smaller corporations. Nearly 45 percent of their funds came from outside sources in comparison with 37 percent for the large ones. The sharpest contrast in the components of external sources is in trade payables. All corporations excluding the 300 large ones got roughly 13 percent of their financing from trade payables as compared with 4 percent for the large corporations. Also reliance upon bank loans was much heavier for the first group whose bank loans constituted 7 percent of total sources as compared with 1 percent in the financing of the 300 large corporations. The generally greater use of the long-term capital market by larger corporations is reflected in the contrasting figures for capital stock issues.

[3] Since no information is available on the sampling errors for the 300 large corporations, the comparisons may yield differences that are not statistically significant.

TABLE 3.—*Sources of funds of large and other nonfinancial corporations, 1946–55*

IN BILLIONS OF DOLLARS

Source	All corporations	Large corporations[1]	Other
Total sources[2]	307.4	[3] 110.3	197.1
Internal, total[4]	178.4	69.3	109.1
Retained earnings	88.3	33.6	54.7
Capital consumption allowances	90.1	35.7	54.4
External, total	128.9	41.0	87.9
Trade payables	29.0	4.3	24.7
Bank loans	14.3	1.1	13.2
Accrued income taxes	8.5	5.8	2.7
Other liabilities	13.6	4.3	9.3
Mortgages, bonds	43.7	15.2	28.5
Capital stock	19.8	10.3	9.5

PERCENTAGE DISTRIBUTION

Total sources[2]	100.0	100.0	100.0
Internal, total[4]	58.0	62.8	55.4
Retained earnings	28.7	30.5	27.8
Capital consumption allowances	29.3	32.4	27.6
External, total	41.9	37.2	44.6
Trade payables	9.4	3.9	12.5
Bank loans	4.7	1.0	6.7
Accrued income taxes	2.8	5.3	1.4
Other liabilities	4.4	3.9	4.7
Mortgages, bonds	14.2	13.8	14.5
Capital stock	6.4	9.3	4.8

[1] Covers the large corporations tabulated in the Federal Reserve Board's annual financing study of approximately 300 large corporations.

[2] Detail may not add to totals because of rounding.

[3] Proceeds from sales of fixed assets and investments, tax refunds, and extraordinary sources of funds have been eliminated to make the Federal Reserve data for large corporations comparable to the Department of Commerce series and to make the data consistent for all, large, other corporations.

[4] A certain measure of inconsistency is present because the Department of Commerce includes depletion in retained earnings in the data from which the first column is drawn, while the Federal Reserve includes it in depreciation in the data used in the 2d column. No adjustment is made here.

Sources: Data for the years 1946–52 in absolute sums from R. W. Goldsmith, Financial Intermediaries in the American Economy Since 1900 (Princeton University Press, 1958), pp. 268–269. For large corporations in the years 1953–55, the data are from various issues of the Federal Reserve Bulletin. Data for all corporations in the period 1953–55 from Herman I. Liebling, Financing the Expansion of Business, Survey of Current Business, September 1957, p. 9.

Unincorporated business

Data on the financing of unincorporated business are fragmentary. Goldsmith provides estimates of the balance sheets of unincorporated business for certain years in the period 1900–49 in current prices.[4]

The total assets of unincorporated business rose steadily from 1900 to 1949 from $12 billion to $89 billion. In this period, liabilities of unincorporated business rose from $6 billion to $21 billion. Equity rose from $6 billion to $69 billion. Preliminary data for 1955 place the assets of unincorporated business at $127 billion, their liabilities at $44 billion, and their net worth at $83 billion.[5]

[4] Raymond W. Goldsmith, A Study of Saving in the United States (Princeton University Press, 1956), vol. III, table W–29, p. 77.

[5] National Bureau of Economic Research, Financial Research and the Problems of the Day, 37th Annual Report, May 1957, p. 36.

According to Goldsmith, commercial banks were the principal source of short-term funds for unincorporated business while banks and other financial intermediaries provided the long-term credit requirements of these businesses.[6] Trade credit grew in importance as a source of funds after the turn of the century, although its contribution to financing varied in different periods. Retained earnings and net investment by proprietors were twice as large as external financing.

Small businesses are beset by serious difficulties in securing external long-term debt and nonentrepreneurial equity funds. Unlike larger firms, many small businesses have no direct access to the long-term capital market. In those instances where small businesses attempt to secure funds from this sector of the capital market, they are frequently charged such high prices that they are de facto prohibited from using this market as a source of financing. They are forced, consequently, to rely heavily upon interbusiness financing, bank borrowing, and borrowing from nonbank financial institutions.

INTERBUSINESS FINANCING[7]

We define interbusiness financing to include all financing which occurs directly between nonfinancial firms. Characteristically, the borrower and lender involved in this financing arrangement are involved in a buyer-seller relationship also. There need not be a direct money loan in the financing arrangement. For example, the debtor firm may receive credit from a supplier when purchasing inventory or equipment. Merely because trade credit is associated with a purchase does not mean that the credit can be used only to finance that purchase. Any credit releases funds which can be used in other ways. Regardless of the fact that interbusiness financing may be tied to a nonfinancial transaction, the financial effect is identical to that of a bank loan or any other direct cash acquisition. If the credit terms of the sale exceed the period of financing need, trade credit may be used to finance other assets. Even if the credit terms are short of the period of production, there is a financial effect. The user does not have to tie-up funds in inventory for as long a period as he would if he had no trade credit. The released funds may be used in any way.

Trade credit

Trade credit generally arises from the purchase of merchandise. The seller does not demand immediate payment for the shipped goods but carries the purchase as an account receivable. Ordinarily, there is no credit instrument except for the ledger entry. If the buyer fails to pay within the agreed-upon period, the seller may insist that the buyer sign a promissory note to make the debt obligation more formal.

Payment dates are set with discounts usually allowed for early payments. Thus, terms may be 2/10, net/60, i. e., if payment is made within 10 days, 2 percent may be deducted from the bill; but the bill must be paid within 60 days. Discount terms are important in determining the interest cost of the credit to the purchaser. In

[6] R. W. Goldsmith, Financial Intermediaries in the American Economy Since 1900 (Princeton University Press, 1958), estimates the recent mortgage financing of unincorporated business by financial intermediaries at over 30 percent. See p. 216.

[7] For results of Federal Reserve survey of this source of funds, see pt. II, Surveys of Credit and Capital Sources, survey V, p. 482.

the example, if the customer waits the full 60 days, he is paying in effect 2 percent for a credit extension of 50 days. On an annual basis, this is equivalent to an interest rate of 14.4 percent.

Trade credit is extended for the following reasons: Sale on open account is a form of nonprice competition and an important factor in stimulating sales.[8] The seller can acquire funds more cheaply than the buyer since typically the seller has a higher credit rating. The additional volume of sales resulting from the credit extension may generate greater profits due to economies of scale. Furthermore, the actual credit extended is less than the sales price of the product financed because of the profit element included in the sale price of the product.

From the trade debtor's point of view, the cost of trade credit may be measured in two ways. If discount terms are available, the cost incurred by failing to take discounts may be considered. The other cost may be in the price of the goods bought. Since the seller has incurred credit costs (at minimum, his costs are the loss of the return from an alternate use of his funds), these may be embedded in the price charged for his product. This assumes that the additional sales volume resulting from the credit extension does not result in significant economies of scale for the seller. However, high volume may create economies of scale which are sufficiently large to absorb the added costs of extending credit.

The trade debtor (buyer) will accept the costs of trade credit providing that the purchase cannot be financed in a cheaper way. Thus, if the buyer can utilize past earnings, bank credit, or any other source of credit with a lower cost, he will not use trade credit.

Except for the very largest firms, the smaller the firm, the greater its reliance upon trade credit. Data from the FTC–SEC Quarterly Financial Report of Manufacturing Corporations show that for manufacturing corporations with assets of less than $250,000, trade payables averaged 21 percent of total liabilities and net worth over the period 1955–57. The comparable figure for all manufacturing corporations was 8 percent.

Data from the Statistics of Income for 1952 show that large corporations tend to be net trade creditors while smaller corporations are not. This is also true for agriculture, forestry and fishing, mining and quarrying, construction, manufacturing, public utilities, and trade and service corporations.

As a continuous series, the Quarterly Financial Report is available for manufacturing corporations only. However, the Quarterly Financial Report for Retailing and Wholesaling Corporations is available for 1951 and 1952. Since the wholesaling and retailing industries are characterized by small firms, these data are particularly relevant. Generally, the dependence of small retailers and wholesalers on trade credit is similar to that of the small manufacturer. While all three groups of corporations—manufacturing, wholesaling, and retailing—tend to be net trade creditors, i. e., they extend more credit to their customers than they receive from their suppliers, the smaller corporations approach a balance between trade credit extended and trade credit received. For example, the ratio of accounts and notes receiva-

[8] See p. 26.

ble to accounts payable for retailing corporations with assets of less than $250,000 is 1.1, lower than for any other size group.

Unfortunately, corresponding data are not available for nonfarm, noncorporate business. Incomplete balance sheet information for this sector taken from the Federal Reserve Board's flow of funds studies shows that in 1955 trade credit extended was about 0.6 of trade credit received.[9] Since most noncorporate, nonfarm businesses are small, they tend to be trade debtors and are financed by larger (for the most part, corporate) businesses.

Data taken from Statistics of Income for "all industries" and the "trade" industry show a very high relationship between total compiled receipts and notes and accounts receivable. The correlation coefficient is greater than 0.9 in the period 1924–53. Sales appeared to be more reliant on credit extensions during the 1946–53 period than between 1924 and 1940. The World War II period shows no relationship, as would be expected in view of the scarcities and sellers' markets during that period. The relationship between total compiled receipts and accounts and notes receivable was stronger for trade firms than for all industries.

Potentially, trade credit is a subtle form of competition. Price changes may be met by competitors immediately, but trade credit terms are apt to be less well publicized. Further, trade credit can be made more generous without changing the discount rate. If the terms of 2/30, net/60, are changed to 2/10, net/60, the effective annual interest rate falls from 24 percent to 14.4 percent for firms which fail to pay within the discount period. Similarly, if sellers wish to raise prices without arousing the customer, credit terms can be tightened. In periods of strong seller competition, credit terms may not be changed at all. However, buyers may be allowed to deduct the rapid payment discount even after the discount period. When conditions become less competitive, the discount period can be enforced by sellers.

Trade credit terms can be used to encourage off-season buying by deferred dating of trade credit terms. Thus, a toy manufacturer may offer toys in July with favorable discount terms beginning, say, October 1. The deferred dating can be offered in conjunction with higher discount rates and/or lower prices. A large firm with greater access to funds is in a better position to do this than a small firm.

The selling firm (extender of trade credit) may finance itself in a variety of ways.[10] Over the past quarter of a century the number of financial institutions which accept accounts receivable as collateral on a recourse or nonrecourse basis have grown. In the late 1930's, banks entered the area of "buying" accounts. The growth in volume of lending against accounts receivable by financial institutions suggests that more firms can finance trade credit by "selling" the resulting open book accounts. Thus, a firm which is barred from direct access to particular capital markets because of high costs can be financed indirectly by these same capital markets at lower rates because of the interposition of a selling firm with a better credit standing.

Cash loans

Merchandise suppliers sometimes make direct cash loans to customers. There is no evidence available as to the extent of this prac-

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[9] Federal Reserve Bulletin, October 1957, p. 1194.

[10] N. H. Jacoby and R. J. Saulnier, Business Finance and Banking (National Bureau of Economic Research, 1947), pp. 113 ff.

tice. In addition, there are examples of large companies providing cash loans to smaller companies who serve as suppliers to the large firms. Moreover, cases are known where larger companies, wishing to maintain business relationships with smaller companies, for whatever reasons, will guarantee the credit of the smaller firm, thereby providing it with access to funds on terms that would otherwise not be available.

Provision of equipment and supplies

Various suppliers are willing to provide equipment related to the merchandise they sell. For example, a beverage distributor may supply coolers to his customers. This equipment may be loaned, leased, or sold. If sold, it may be financed initially by the merchandising supplier. Apparently there are cases where a customer may use equipment free as long as he continues to purchase merchandise from the supplier. Even if he changes suppliers, presumably the same equipment service would be available to him from the new source. The advantage to the supplier is that he gains a customer and, presumably, the customer purchases sufficient merchandise to cover the financing costs of the equipment.

The equipment user may prefer to purchase equipment through his merchandise supplier rather than to purchase from an equipment distributor. It may be argued that the merchandise supplier sells the equipment at cost and buys the equipment at high volume prices. If this is true, such equipment supplying acts to pass on an economy of scale to an equipment user too small to achieve the economy directly. As in the case of trade credit, the merchandise supplier may achieve sufficiently large economies of scale by increasing product sales via equipment financing. Thus, the merchandise supplier may be able to offer better equipment terms than could an ordinary equipment supplier.

Equipment financing

Equipment financing is another form of interbusiness financing which results from a transfer of goods, in this case, capital equipment. The transfer may take the form of an installment sale or a lease.

Leases are used in acquiring a widening group of assets such as real estate, machine tools, vehicle fleets, and office equipment. The most recent information on the frequency of use of equipment loans and leases comes from the Machinery and Allied Products Institute (MAPI) which surveyed 250 firms in the capital-goods industry.[11] Twenty-four percent of the firms responding sold equipment on an installment basis. Two-thirds of those making installment sales financed the sales by selling the resulting installment paper, in most cases without recourse. Fourteen percent of the firms were willing to lease equipment to customers. Seven percent of the responding firms used the lease device themselves in order to acquire equipment. A recent estimate puts the number of operating automobiles that are leased at 260,000. Since June 1950, car leasing has grown at an annual rate of 20 to 30 percent. Truck leasing has grown at least as rapidly. About 250,000 trucks are presently leased and it is estimated that by 1965, 800,000 trucks will be leased.[12]

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[11] Machinery and Allied Products Institute, Equipment Replacement and Depreciation: Policies and Practices (1956), pp. 9–10.

[12] American Finance Conference, Special Bulletin No. 67 (1957), p. 14.

Unfortunately, no adequate information is available on the size of firms offering and using these forms of interbusiness financing. On the basis of fragmentary evidence it would appear that small business is not an important user of this form of financing largely because of its inability to meet the credit standards laid down by lessors. We do not have information on how lessors finance leases, although fleet financing through a trustee has grown in a number of insurance companies.

The lease is not just a means of acquiring an asset, it is a means of financing an asset. Therefore, in deciding whether to buy or lease, the equipment user must consider the financing alternatives such as term loans, installment purchases, etc. Depreciation is an important factor in the decision. Favorable depreciation allowances make owning more desirable to both lessor and lessee. In such an instance, the lease rates are apt to fall and the state of competition for leases is apt to reflect the terms on which user and lessor firms can enter the capital markets. If the lessor firms have substantial advantages in acquiring funds, leasing will be cheaper than owning.

Like trade credit, the lease enables a firm to acquire financing from sources which the firm could not approach directly. In choosing the form of financing the firm should attempt to calculate the most advantageous means. It will take trade credit if this is the least costly way of financing purchases. It will lease if this is the most profitable way of acquiring an asset. While certain liabilities are frequently called automatic in the sense that they result from the normal operations of the firm—in a sense are byproducts—this is inadequate for analytical purposes. The firm does not have to allow many accruals to arise, it does not have to accept trade credit, and it does not have to lease. It must be assumed that if these methods of financing are used, it is because they are the best sources of financing available to the firm.

With the increasing mechanization of industry, the financing of machinery and equipment by manufacturers into the hands of distributors and ultimate users has grown in volume. Typically the financing contracts are loans secured by equipment and repayable in installments over period of more than a year. These loans are often discounted with finance companies with recourse to the manufacturer in case of default by the buyer.

Many equipment manufacturers, however, have preferred to carry their own receivables either directly or through their own financing subsidiary. In recent years the number of financing subsidiaries has grown noticeably. The reasons for establishing financing subsidiaries vary. Among them are: the desire to earn financing charges, to avoid the possibility of having a financial institution injure relations with customers by its collection procedures, to maintain customer goodwill, or to supply business firms whose credit ratings are not acceptable to financing institutions.[13]

The financial subsidiary is established by the manufacturing firm which supplies equity funds directly, while the subsidiary usually obtains debt funds from the capital market. To the extent that the financial subsidiaries extend the benefit of their superior financial

[13] N. H. Jacoby and J. F. Weston, Financial Policies for Regularizing Business Investments, National Bureau of Economic Research, Regularization of Business Investment (Princeton University Press, 1957), p. 442.

resources to smaller businesses, they exemplify the interpenetration of financial markets through the medium of interbusiness financing noted in many connections in this paper.

In periods when loanable funds are in short supply, does interbusiness financing become more significant? One line of reasoning argues that in periods of tight money small borrowers will face increased difficulty in acquiring funds directly from banks or other traditional financial institutions. Under such circumstances, devices such as trade credit, equipment installment financing, and leases will look very attractive to the small firm which, as was argued above, will be forced to tap the funds market via the interposition of some better credit risk. Evidence on this problem is inadequate. The recent tight money pressures were discussed by members of the staff of the Federal Reserve Bank of Chicago, as they affected the Seventh Federal Reserve District.[14] It was disclosed that during the tight money period, the percentage of bank loans made at risk rates decreased markedly. The industries most affected were trade, construction, and textiles which are composed primarily of small firms.

A member of the staff of the Kansas City Federal Reserve Bank showed that trade credit apparently expands in response to monetary restrictions.[15] An analysis of data in the Quarterly Financial Report of Manufacturing Corporations showed a substantial increase in net trade credit in most recent years. The Kansas City writer goes on to show that the trade credit increase was larger than the increase in bank loans. In other words, suppliers were drawing down cash balances and increasing the velocity of money to offset the stringency in the money supply. More current data show that in 1956 large corporations (trade credit suppliers) increased bank loans and long-term indebtedness over 1955. Small corporations increased bank loans less in 1956 than in 1955, while decreasing their long-term indebtedness. In 1955 trade credit represented a use of funds for small corporations. In 1956 trade credit was the most important single source of funds for these firms. These findings confirm earlier studies which suggest that larger firms tend ot redistribute the total supply of funds in the business system and thereby add to the liquidity of the smaller and medium-size enterprises.[16]

COMMERCIAL BANKING SYSTEM [17]

The most important group of short- and intermediate-term lenders to small business are the commercial banks.[18] Probably more is known of their practices, the volume and composition of their loaning activities, costs, the manner in which loans are secured, and their methods of credit assessment than is the case for any other lending institution. What is probably of equal or greater importance is that more is known of their lending activities with specific reference to size of borrower than for any financing institution.

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[14] The Price of Business Loans (Federal Reserve Bank of Chicago), Business Conditions, March 1957, p. 14.

[15] Trade Credit: A Factor in the Rationing of Capital (Federal Reserve Bank of Kansas City), Monthly Review, June 1957.

[16] See N. H. Jacoby and J. F. Weston, op. cit., pp. 439 ff.; also C. L. Merwin, Financing Small Corporations in Five Manufacturing Industries, 1926–36 (National Bureau of Economic Research, 1942), passim; J. K. Butters and J. Lintner, The Effects of Taxes on Growing Enterprises (Harvard University Press, 1945), pp. 126–127.

[17] For results of Federal Reserve surveys of this source of funds, see pt. II, Surveys of Credit and Capital Sources, surveys II and III.

[18] Goldsmith, op. cit., p. 252.

In November 1946, member banks, whose asset totals dominate the universe of commercial banks, had $13 billion of loans outstanding to businesses. By October 1955, the total outstanding was $31 billion, a rise of $18 billion in 9 years. On both dates businesses with total assets under $250,000 owed a vast preponderance of the number of loans. In dollar terms, though, loans to larger businesses were much greater.

Data are available in such great detail from the first postwar member bank loan survey and presumably will be from the second one when publication is completed, that it is impossible to review it all here. It must suffice to say that a thorough breakdown of data regarding industry, size of borrower, size of lending bank, term loans, legal form of borrower, security pledged, the structure of interest rates, and many particulars regarding small business loans were furnished. It is to be hoped that such plentiful data will be available ultimately for the other lending institutions.

The numerous studies on the cost of security flotations point up the difficulties besetting the small corporation in its attempts to tap the capital market for funds. The external financing problem of the small, unincorporated business is even more difficult. Virtually the only institutional source to which small, unincorporated firms may look for long-term debt, and one of the few sources available to the small corporation, is the commercial bank.

Bank loans having an original maturity of more than 1 year are generally referred to as "term loans." Data presented by the latest Federal Reserve survey of member banks loans show that term loans amounted to about one-third of all member bank loans to business. As such, they are an important portion of the external long-term financing of business. Examination of the proportion of term loans to all member bank loans in different industries shows considerable variation by size of firm. For the very small firm (assets of less than $50,000) in all industries, term loans constituted about 41 percent of all loans. This was a higher percentage than for any other size group except for firms with $25 million or more of assets. The general observation holds loosely for all industry groupings.

The industrial distribution of member bank loans is relevant here because of the characteristic association of industry and asset size of firm. Changes in the distribution of loans by industry between the 1946 survey and that of 1955 reflect broadly the resource reallocation underway in that decade. In 1946 manufacturing and mining companies had 17 percent of the total number of bank loans outstanding which amounted to 43 percent of the total volume. By 1955 the share of the manufacturing and mining industries in the aggregate dollar volume had declined to 37 percent while the number of loans had remained constant as a percentage of the total.

The trade industries as a whole experienced a decline in their share of both the dollar volume of outstanding loans and the number of loans made. In 1946 the trade industry had 51 percent of the loans outstanding aggregating 30 percent of the dollar volume. Nine years later the percentages of loans held had dropped to 39, and the dollar volume had declined to 21 percent of the total; the absolute figures for both the number of loans and dollar volume in the retail and wholesale trades expanded over this period.

Other industries—sales financing, transportation, communication, and other public utilities, construction, and service industries—increased in importance as bank borrowers over this period. Sales finance companies increased their share of the volume of loans outstanding at the survey date from 6 percent in 1946 to 9 percent in 1955; the number of their loans was a constant percentage of the total. Figures for real-estate companies are not separately available from the 1946 survey; in 1955, however, real-estate companies accounted for 8 percent of the amount of loans and 6 percent of the number of all business loans.

Information on lending practices of commercial banks is still inadequate despite the loan surveys. Bank evaluation of loan applications as to creditworthiness and prospective profitability is not well known, at least in a systematic or comprehensive way. The traditional examination of financial position is understood, of course, but our knowledge of the bankers' subjective evaluation of these objective criteria employed for acceptance or rejection of loan applications is, at best, quite primitive.[19] It is likely that the rationing method varies as between phases of the business cycle.

The industrial loan experience of the Federal Reserve Bank of New York during the 1930's indicates that managerial assistance is an integral and, perhaps, indispensable part of successful bank management of small-loan portfolios.[20] Though we cannot be sure in the absence of definitive study, this connotes an underlying cost structure which delimits the profitable size of the small-loan portfolio, perhaps in both directions. A certain fixity of cost is incurred in constructing and equipping departments designed to give advice and assistance to loan applicants, and to maintain other services for one class of customer. In addition, costs of extensive investigation are frequently associated with small borrowers of unknown credit status. Thus, banks face the double-edged problem of extending managerial assistance to small borrowers, but to an extent consistent with profitability.

An interesting line of investigation is suggested by the known differences of lending by small and large banks. Results of the 1955 member bank loan survey indicate that the loan structure of small banks differs significantly from that of large banks. At the survey date, retail firms were the most important borrowers from small banks (defined as those with deposits under $20 million). This contrasted with banks with $100 million and over of deposits where loans to manufacturing and mining concerns predominated in terms of dollar volume and were about half the number of loans.

Over three-fourths of the loan portfolios of large seventh district banks referred to above were at rates below 5½ percent. On the other hand, slightly over two-thirds of the portfolio of small rural banks were at rates below this level. However, metropolitan banks made a higher percentage of their loans at very high rates. Two and one-half percent of the loans of banks in large urban areas were at rates over 9½ percent while less than 1 percent of country bank loans were at this rate. The reason given for this is the tendency of large banks to

[19] D. S. Thompson, Changes in Quality of Bank Credit, Journal of Finance, May 1956, p. 311.

[20] Robert V. Roosa, Some Small Business Problems Indicated by the Industrial Loan Experience of the Federal Reserve Bank of New York, Journal of Finance, April 1947, passim.

make small-business loans on an installment repayment basis where the charge is made on the whole principal of the loan and not on the adjusted balance.[21] Also, the banks in large urban centers tend to make more of the specialized high-risk loans than do the small banks. These findings suggest that a certain kind of credit risk accommodated at high rates at large banks is virtually excluded at small banks at any rate.

Bank lending in relation to other sources for small business

There are several sources of information on the importance of bank loans in relation to other sources of funds, i. e., the share of bank loans in the total financing of small business. McHugh and Ciaccio of the Department of Commerce's Office of Business Economics reported the results of a sample survey of small- and intermediate-size business financing.[22] Sources of financing was one object of inquiry and from that we can derive an idea of the numerical bulk of bank loans in relation to all loans for the concern sampled. (NOTE.—This is not a comparison of bank loans with all sources of funds, but with all loans.) This procedure omits the very important trade credit source. Bank loans to established businesses constituted nearly 80 percent of all loans made to this group. They were nearly 70 percent of all loans to new firms. Similar results were reported from an earlier sample.[23] It was reported there that banks made 66 percent of the loans to firms sampled in the year ending June 30, 1950, and 79 percent of the aggregate amount.

An article on the financing of new trade firms indicated that wholesale trade firms starting operations in the 1945–47 period were dependent on bank loans to the extent of 10 percent of total sources of funds.[24] Retail trade firms depended on bank loans for 14 percent of their financing. Within the wholesale trade unincorporated firms financed 18 percent of their requirements from bank loans in comparison with 8 percent for incorporated firms. Within the new retail firms dependency was identical as between legal forms of organization.

INSURANCE COMPANY LENDING [25]

Life insurance companies have experienced a steady rate of increase in total assets during the present century. Assets have doubled each decade since 1910 and now amount to about $100 billion. By virtue of the vast sums of money at their disposal, the life insurance companies are one of the most important sources of business financing. They have specialized in medium- and long-term credits provided through open market purchases of corporate bonds and notes, direct purchases of such instruments, and mortgage loans on nonresidential property.

The most useful information on the breakdown of life insurance company lending to business by size of loan, size of borrower, and

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[21] The foregoing data are from Business Loans at Small Banks (Federal Reserve Bank of Chicago), Business Conditions, January 1957, p. 14.

[22] Loughlin McHugh and Jack N. Ciaccio, External Financing of Small- and Medium-Size Business, Survey of Current Business, October 1955, pp. 15–21.

[23] Loughlin McHugh, Financing Small Business in the Postwar Period, Survey of Current Business, November 1951, pp. 17–23.

[24] Lawrence Bridge, Capital Requirements of New Trade Firms, Survey of Current Business, December 1948, p. 23.

[25] For further discussion of this source of funds, see pt. II, Surveys of Credit and Capital Sources, survey VI.

average rates on both bonds and mortgage loans is contained in a recent paper.[26]

The data indicate that of the total number of borrowing operations by business firms from a sample of life insurance companies in the period 1953–56, including loans through either bonds or mortgages, almost three-quarters of the number were for loans involving less than $250,000. The annual dollar volume of small loans averaged $278 million over the period, equivalent to about 6 percent of yearly total business loan authorizations.[27]

Loans to businesses with assets of under $1 million were 3.6 percent, 4.5, 2.5, and 2.0 percent of the number of loans on business and industrial bonds in 1953, 1954, 1955, and 1956 respectively. The amount of loans to borrowers in this asset size class was about 0.2 percent of total business bond authorizations throughout the period.

The survey results indicate an inverse relationship between size of loan and interest rates on all life insurance company lending. Larger loans commanded lower rates than smaller loans. As one would anticipate, the movements in the average rate during the survey period paralleled those of interest rates in the economy generally. As the entire schedule of interest rates rose in 1955 and 1956, larger loans experienced the sharpest increase in rates. For example, borrowing costs on bonds under $50,000 increased from 4.95 percent in 1955 to 5.15 percent in 1956, an increase of less than a twentieth. But average rates on loans of $10 million and over rose from 3.98 to 4.36 percent, a jump of almost a tenth.

Small mortgage loans were a somewhat greater proportion of all mortgage loans that were small business bond-secured loans to total bond-secured loans. As is the case of bond loans, the number of small mortgages as a percentage of the total number authorized declined in 1954, 1955, and 1956; the same was true of mortgage loans to small firms.

The industry distribution of borrowers contrasts sharply for bond and mortgage loans. Manufacturing firms borrow approximately 45 percent of the number of all bond loans, and finance companies (almost exclusively large companies) about 25 percent. Their combined loans were variable but accounted for roughly 70 percent of all investments in business and industrial bonds during the period. On the other hand, retail trade establishments were the dominant borrowers on mortgage loans. They accounted for roughly 46 percent of the number and 40 percent of the amount of mortgage loan authorizations in 1953–56.

At the end of 1955, life insurance company outstanding mortgage loans on nonresidential property amounted to roughly $5.9 billion.[28] In cases where the earning power of the prospective borrower cannot be determined with certainty or the principal income-producing asset of the borrower is real property, the mortgage loan provides a vehicle for borrowing from the insurance company. In cases where the busi-

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[26] This information summarizes a survey of life insurance company lending in the period 1953–56 by the Life Insurance Association of America done at the request of the Select Committee on Small Business of the House of Representatives. The results of the survey have been published as Joint Investment Bulletin No. 321, by the Life Insurance Association of America and the American Life Convention. The survey covered 67 major companies with 77 percent of all assets held by life insurance companies.

[27] Ibid., table 2, p. 6.

[28] Capital Market Project of the National Bureau of Economic Research.

ness is unincorporated, State regulations prohibiting unsecured loans to such borrowers may make lending on real estate the only means for a life insurance company to lend to the business concern.[29] It is estimated that approximately 30 percent of the $5.9 billion of loans was owed by the nonfarm, noncorporate business sector.[30] Roughly 75 percent of these outstanding mortgage loans were secured by commercial structures and the remainder were accounted for by industrial structures. As late as 1940 industrial mortgage financing by insurance companies was nonexistent.[31] It follows that unincorporated industrial firms have augmented their sources of long-term credit from insurance companies in the last two decades.

Another source of life-insurance funds for business about which we know very little is the policy loan of life insurance companies. It is known that loans to individuals secured by the cash surrender value of their policies constitute a regular source of funds for smaller businesses. A study of the Office of Business Economics of the Department of Commerce indicated that nonbank sources accounted for one-third of the number of small business loans in the period July 1, 1949, to June 30, 1950, and one-fifth the aggregate volume. It said, "chief nonbank financial sources of funds were insurance companies (through policy loans) and small loan concerns."[32] Yet little or no information is available regarding frequency of use and magnitude of policy loans for business although Goldsmith allocates almost 90 percent of these loans to nonfarm households.[33]

At the end of 1956, policy loans of $3.5 billion equal to 3.7 percent of all assets of life insurance companies were outstanding. Policy loan volume was only 4.4 percent of total reserves of all kinds, and it was 6 percent of the $58 billion of reserves specifically available to assure fulfillment of life-insurance contracts.[34]

Policy loans have not always been as low a percentage of life insurance company assets as currently. The ratio of policy loans to reserves was in the middle teen percentages from 1910 through the 1920's. During the 1920's, policy loans ranged from about 11.5 percent to 13.5 percent of assets. During the adversities of the 1930's they rose as high as 18 percent. It is only since the 1940's that the proportion has declined to its present low level. This decline is attributable to three major factors: (1) the growth of commercial bank personal lending, (2) improvement of economic conditions, and (3) the fall in costs of consumer credit and the growth in number and diversity of loans from consumer credit institutions.

Thus, this source of funds has not always been as little used as at present. It is clear that not every policyholder is or wants to become a small-business man. Yet, judging by historical standards a ratio of policy loans to total reserves of 4.4 percent or to reserves for life insurance contracts of 6 percent seems low if there is a stringency as alleged in the supply of funds to small businesses.

The number of policyholders who are small-business men who could but do not draw on this source is a relevant but unknown statistic. More knowledge in this area might well enable us to judge more intelli-

[29] Life Insurance Association of America, op. cit., p. 15.
[30] Goldsmith, op. cit., table 8–A.
[31] Jacoby and Saulnier, op. cit., p. 119.
[32] McHugh, op. cit., p. 20.
[33] Goldsmith, op. cit., table 8–A.
[34] Institute of Life Insurance, Life Insurance Fact Book, 1957, pp. 58, 80.

gently the frequent charge that the capital market treats the small-business man unfairly. Life insurance companies are obligated contractually to lend upon the security of the cash surrender value of a life policy. If entrepreneurs possess the ability to borrow from this source and do not, it would be important to know their reasons. Slight utilization of this reservoir of funds may indicate that one source of financial trouble for the small firm is a disinclination to shoulder risk rather than a dearth of available funds. Thus, our qualitative conclusions about insurance-company financing of small business may be quite different since the assumption of risk is an integral and necessary feature of the enterprise system and, if small business does not choose to utilize this source of financing, it indicates an unwillingness on its part to assume risk rather than a lack of availability of funds to it.

Since the policy loan ceiling rate is fixed, it is obvious that in periods of tight money the differential in favor of borrowing on policy loans increases and one would expect them to increase in such times. Yet year-to-year changes in the volume of outstanding policy loans do not suggest a sensitivity to stringency or ease in the market for loanable funds. Policy loans have expanded very slowly in recent years from a total of $1.9 billion outstanding at the end of 1945 to $3.5 billion at the end of 1956; they have been virtually constant as a percentage of assets since 1946.

While life insurance companies are a dominant institution in the medium- and long-term business credit market, they have been a relatively unimportant source of funds to small business. Their operations have been to centralized to provide mass financing of small loans. Their fiduciary responsibilities to policyholders and a vast network of State regulation of investment policy has tended to limit insurance company business loans to borrowers of large amounts—characteristically large corporations—with high credit ratings.[35]

FINANCE COMPANIES AND OTHER FINANCIAL INSTITUTIONS [36]

There has arisen in the financial markets a number of nonbank financial institutions whose growth can be explained in terms of new lending techniques as well as higher charges and differing assessment of credit risks from those of the older institutions serving the small- and medium-size business market.

These "other" financial institutions enable businesses to acquire funds through the sale of or by borrowing on the security of some working capital assets; in addition, they enable businesses to acquire fixed assets on an installment repayment basis. In this section we attempt to explain these lending practices, stressing the aspects which are of specific interest in a study of small-business financing. The following transactions are considered:

(1) Sale or assignment of accounts receivable—
  (*a*) with recourse and without notification of debtors;
  (*b*) without recourse and with notification of debtors.

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[35] See R. B. Patrick, Management of Life Insurance Investment Portfolio, and J. J. O'Leary, The Influence of Government, and G. T. Conklin, Jr., A Century of Life Insurance Portfolio Management, in Investment of Life Insurance Funds, ed. D. McCahan (University of Pennsylvania Press, 1953).

[36] For results of Federal Reserve survey of commercial finance companies and factors, see pt. II, Surveys of Credit and Capital Sources, survey IV.

(2) Inventory financing—
  (*a*) on the strength of factors liens;
  (*b*) on the strength of warehouse receipts;
  (*c*) on the strength of trust receipts.

(3) Installment financing of income-producing equipment—
  (*a*) financing the seller on conditional sales contracts;
  (*b*) financing the buyer on the security of a chattel mortgage.

(4) Retail sales financing and wholesale sales financing or "floor planning."

It is difficult to connect particular financial institutions with particular practices. For example, the larger finance companies engage in all these transactions. Smaller companies engage in fewer types, some perhaps in only 1 of the 4 types. Old-line "factors," from which the contemporary finance company has evolved, traditionally engage in 1 (b)—the purchase of accounts receivable from businesses without recourse and with notification of the obligors on the accounts. In recent times, however, they have begun to penetrate other markets.

Although these forms of financing are not new (indeed, factoring is quite old), it is only in comparatively recent times that they have burgeoned and become quite important beyond the limits of the industries with which they were originally associated. The commercial banks were unwilling or unable, or both, to foster this type of financing. In its early stages they found the peculiar types of risk involved prohibitive and did not develop the administrative structure necessary for successful management of such loans.

At least two writers have claimed that receivables financing received much of its viability from Government actions. First, passage of the Assignment of Claims Act by Congress in 1940 permitted businesses to assign debts owed them by the Government. This aided small- and medium-size businesses acting as subcontractors under war contracts. Secondly, the Reconstruction Finance Corporation used this device in its operations.[37] In a sense, Government merely added respectability to a risk formerly shunned by commercial banks, whereupon private resources met the need expressed by businesses. Belatedly, commercial banks moved into this field and expanded their business in this area. Still another new tendency is for banks and finance companies to make loans on a participating basis.[38] Extension of this practice may offer a way for the banking system to make available an enlarged volume of resources to firms interested in receivables financing.

Practices and institutions [39]

Factoring existed in several lines of business, but especially in the textile business, for many years prior to the spread of working capital financing by finance companies. The word "factoring" itself refers to the practice whereby a business sells its accounts receivable to a financial company on the basis of no recourse against the seller.

[37] Shandor Zinner, The Contribution of Commercial Receivable Companies and Factors to Financing Small, and Medium-Size Business, Journal of Finance, April 1947, p. 88, and Clyde William Phelps, Accounts Receivable Financing as a Method of Business Finance (Commercial Credit Co., 1957), p. 61.
[38] Phelps, op. cit., p. 60.
[39] On this general subject see Jacoby and Saulnier, op. cit., passim.

Obligors on the accounts receivable are notified of the sale and pay the new holder directly. The collection problem, and the entire risk, is thus shifted directly to the factoring company. There are only a score of well-known and established institutions in this field; they are geographically concentrated in New York City. Subsidiaries of some sales finance companies also engage in factoring operations. At the end of 1955 outstanding loans of factors and factoring subsidiaries of finance companies were $0.9 billion.[40]

The assignment of open accounts receivable developed from this method. It is different from factoring in that it involves an agreement whereby a financing institution advances to its customer loans secured by the assignment of receivables with recourse to him for credit losses and without notice to his trade debtors; the collection function is retained by the business firm. The latter feature resulted from the dislike of some trade debtors for dealing with institutions unknown to them or outside of their locality. Some factoring institutions are taking up this practice now, but the lion's share is claimed by commercial finance companies. It is estimated that specialized financing firms are extending more than $5 billion annually upon the security of open receivables under this nonnotification plan.[41]

Inventory financing is peculiar in large part to seasonal businesses which find their liquidity resources pressed by the need to accumulate inventory in irregular patterns. It is effected through the use of bills of lading, warehouse receipts, and factors' liens. The advancement of funds takes place upon the continuing security of one of these forms of protection. Usually the lender retains the authority to determine the amount he will advance upon this security. Sales finance companies are among the largest lenders for carrying inventories.[42]

Equipment financing involves installment sales financing of income-producing equipment either for the buyer or seller. To avoid the burden of a large outlay for equipment, a company may wish to buy on an installment basis. A seller may secure an advance of funds by assigning conditional sales contracts and the related notes to a finance company. The owner or buyer of equipment is thus financed through the creation of a lien on the equipment by the means of a chattel mortgage.

Retail sales financing refers to the purchase by a finance company of a conditional sales contract concluded between a dealer and his customer. The conditional sales contract allows the dealer and his assignees to retain ownership of the merchandise until all payments have been made with the right of repossession in the case of default. The finance company will purchase the contract providing the dealer with cash.

Wholesale sales financing or "floor planning" refers to the financing of a dealer's inventory, or in other words, his current wholesale purchases from manufacturers. Title to the goods, usually automobiles or other consumer durables, is secured to the finance company by a trust receipt.

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[40] Capital Market Project of NBER. See also C. W. Phelps, The Role of Factoring in Modern Business Finance (Commercial Credit Co., 1956), p. 11. An earlier authoritative source is R. J. Caulnier and N. H. Jacoby, Accounts Receivable Financing (National Bureau of Economic Research 1943).

[41] C. W. Phelps, Accounts Receivable Financing, p. 11.

[42] Loans against inventories account for around one-fifth of commercial bank business loans.

The growth of finance companies in recent years has offered a promising avenue for enlarging the resources upon which small and medium-size businesses may draw. A recent book in describing open accounts receivable financing states:[43]

> As to size, proportionally more of the small and medium-size companies make use of receivables financing, although many users are among the larger firms in their fields.

The qualification must be made, however, that finance companies generally set minimum limits regarding the size of concern with which they deal. However, these minimum limits are not identical as between finance companies, and they are not wholly inflexible. Often finance companies will accept as customers applicants below the minimum-size requirements if there is promise of their reaching the desired size as a result of financial aid.[44] Very small firms obtain receivables financing from the many small and medium-size local and regional finance companies.

The specialized financial institutions which participate in the lending practices described in this section have tended to supply credit to medium-size and small firms under conditions where credit risks have been relatively high.[45] They have probably enabled many enterprises to continue in operation and have served to supplement the commercial banks as a source of small-business finance.

Influence of finance company financial structure

Because of the intermediation of the finance company between the long- and short-term financial markets and its customers, events, and circumstances in these markets may exert a strong influence upon the financing of businesses depending on finance company funds.

Sales finance companies rely upon debt financing, both long and short term, to a much greater degree than do industrial corporations.[46] The characteristically heavy dependence of sales finance companies, but especially small ones, upon short-term debt enhances the influence over their operations exerted by the banking system as the largest supplier of short-term funds. Indeed, it has been argued that the shifting of finance companies between short- and long-term financial markets serves to transmit pressure from one to the other as conditions of demand for and supply of funds fluctuate and are reflected in borrowing costs. If it is true that a higher proportion of small borrowers are associated with small finance companies than with the larger ones, conditions in the short-term market for funds may be felt by them because small finance companies make relatively greater use of short-term debt.

If banks insist upon a rapid turnover of finance company borrowers in their portfolios, there may be substantial incentive for finance companies to favor accounts receivable financing over inventory or equipment financing whose liquidation schedules are slower.[47]

Another development of great interest here is the growing tendency for finance companies to place paper directly, usually with nonfinan-

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[43] Phelps, op. cit., p. 62.
[44] Ibid., p. 62.
[45] Jacoby and Saulnier, op. cit., passim.
[46] See Paul F. Smith and Francis R. Pawley, Survey of Finance Companies, Mid-1955, Federal Reserve Bulletin, April 1957, supplementary table 6, p. 408, and Eleanor J. Stockwell, Financial Characteristics of Principal Lenders, Consumer Installment Credit, pt. 1, vol. 2 (Government Printing Office, 1957), table 2, p. 13.
[47] Silbert and Klein, Seeking and Obtaining Short-Term Credit, Business Finance Handbook, editor Lillian Doris (Prentice-Hall, 1953), p. 149.

cial corporations. At the end of September 1957, the volume of directly placed finance company paper was $2 billion. Only the largest companies use this practice. The nonfinancial corporation is the major holder, and since the corporations lending money in this manner are large ones, it is a form of interbusiness financing.[48] In effect, a corporation transfers its excess liquidity to a business in need of cash through the medium of the finance company.

CONCLUSIONS

In view of the absence of detailed data on the financing of small concerns, particularly by type of industry, it is not possible to present a simple and comprehensive picture of how small business or any of its major segments is financed. Nor is it possible to develop a convincing picture of changes in financing patterns overtime. The principal sources of loanable funds to small business are—and have been for many decades—the commercial banks and nonfinancial businesses which extend trade credit and other forms of interbusiness financing.

Between 1900 and 1955, total assets of financial intermediaries increased thirty-five-fold. The share of those intermediaries which are important lenders to small business (commercial banks, finance companies, and factors) fell from approximately 53 percent to 34 percent of the total. This structural change since the beginning of the century cannot have remained without effect on patterns of small business financing and on the availability of funds to small, including new, concerns.

Sources, patterns, and techniques of small-business financing are not fixed, but show response—perhaps not to the full degree desirable—to the changing needs of small business. There is evidence of the development of new lending techniques by existing lenders as well as the creation of new types of financial institutions which provide funds and financial services adapted to the needs of would-be small-business borrowers.

Some segments of the capital market are in a position to view the small firm as a better risk than does the market as a whole. Particular or specialized financial institutions or business firms can acquire funds in the market at low rates because of their superior credit rating, and lend them to smaller firms at a rate lower than the borrowing firm would have to pay if it approached the capital market directly, or they may extend credit in forms which are better adapted to the needs of the smaller concerns. In effect, these lenders (financial institutions and nonfinancial businesses) undertake a form of intermediation and arbitrage and thus, to a certain degree, reduce imperfections in the capital markets. Small firms which have access to them will avail themselves of these sources of financing funds if they are cheaper and more suitable to their needs than alternatives available to them. In some cases, they are also indirectly tapping sources which otherwise altogether would not be available to small concerns.

[48] Donald P. Jacobs, Sources and Costs of Funds of Large Sales Finance Companies, Consumer Installment Credit, pt. II, vol. 1 (Government Printing Office, 1957), p. 363.

3. RISKS AND RETURNS IN SMALL BUSINESS FINANCING[1]

1. INTRODUCTION AND SUMMARY OF FINDINGS[2]

A. Purpose and plan of the report

Studies of the adequacy of credit supplies and credit institutions frequently find the existence of an unsatisfied margin of potential borrowers. Almost inevitably, however, the authors of such studies must grapple with the question of whether these would-be borrowers are, in some sense, creditworthy. In determining the impact of a restrictive monetary policy upon small business firms the problem of creditworthiness is particularly relevant because appraisals of loan risks

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Thomas R. Atkinson received his A. B. degree from Denison University, Granville, Ohio, and his M. A. and Ph. D. degrees in economics from the University of Wisconsin. Before entering graduate school in 1947, he was employed as statistician at the Federal Reserve Bank of Atlanta. From 1951 to 1952 he was a research associate at the National Bureau of Economic Research where he completed a study of investment practices of individuals, which was financed by a grant from the Carnegie Corp. and the University of Wisconsin and which was published in 1956 for the National Bureau of Economic Research by the Princeton University Press. He returned to the Federal Reserve Bank of Atlanta in 1952 and is presently economic adviser to the president of that institution. Mr. Atkinson is the author of numerous articles that appeared in the Monthly Review of the Federal Reserve Bank of Atlanta on the subject of financing business in the Sixth Federal Reserve District. Title of Mr. Atkinson's book: The Pattern of Financial Asset Ownership; Wisconsin Individuals, 1949.

Edward J. Kilberg holds the following degrees: A. B. degree, Hofstra College, 1949; A. M., Duke University, 1951 and University of Chicago, 1957. Candidate for Ph. D. at University of Chicago. He was on the research staff, National Bureau of Economic Research, 1956 too date; assistant to Dr. Arthur F. Burns. Assistant to research director, Mutual Life Insurance Company of New York, 1953–56. Teacher of economics, Alabama Polytechnic Institute, 1950–51. Publications and research: Assistant to Dr. Arthur F. Burns in connection with his book, Prosperity Without Inflation, Fordham University Press 1958 (work included research on credit obtained by small business during recent boom). Loss, Recovery, and Earnings Experience of Commercial Banks (research in progress at the National Bureau of Economics Research). Research on Asset Holdings of Commercial Banks since 1869 (unpublished). The Labor Injunction in the Southeastern States, State Court Injunctions, U. S. Congress, Senate, S. Doc. 7, 81st Cong., 2d sess., Washington: Government Printing Office, 1951.

[2] This study is preliminary and has not been subjected to the full critical review accorded studies of National Bureau of Economic Research. For this reason it is presented on the responsibility of the authors rather than as a report of the National Bureau. Donald P. Jacobs, Elizabeth Simpson, and Victor Zarnowitz have contributed to parts of the report. Raymond W. Goldsmith and Leo Grebler made useful comments on a first draft. Louis De Groot, Estelle Sumberg, and Nadeschda Bohsack rendered valuable statistical assistance. The final report, planned to be an official publication of the National Bureau of Economic Research, will be available near the end of 1958.

of small versus large firms may be quite different and become more so during economic expansions when the demand for funds increases relative to the supply. This paper reports some preliminary findings on what happens to the creditworthiness of small versus large firms in an economic expansion. The results are provisional and may be altered in the light of facts developed upon further investigation.

The chief principle whereby credit is allocated to various users is, of course, smilar to the process whereby most other resources are distributed. Borrowers in each sector of the economy wish to obtain additional funds up to the point that no further additions to their expected net profits may be obtained by employing resources obtained through the loan proceeds. Similarly lenders, broadly speaking, will supply additional credit to borrowers up to the point that the lenders' return from each new loan equals the cost of making that loan, including in the latter, the cost of funds, origination and servicing costs, an amount to cover the estimated likelihood of loss, and perhaps a premium for the bearing of such risks. In practice, of course, other considerations enter into the granting of individual loans. On the lenders' side legal restrictions, supervisory regulations, possible compensating balances, and competitive and management factors may alter the strictly economic considerations entering into the lending process briefly sketched here. Similarly, borrowers may be influenced in their use of funds by questions of how much control over the firm must be given up to obtain funds, long-run competitive advantages to be gained even from using resources unprofitably, collateral considerations obtained from lenders, the risk of an overextended position, etc. Such considerations, however, are not central to the question of how appraisals of creditworthiness may enter into the allocation of financial resources.

The problem to which this report addresses itself arises in a period when the overall demand for loan funds increases relative to the available supply. How will the allocation of credit change in such a period? It may change because the increase in the basic cost of funds affects certain types of lenders or borrowers differently. It may change because of differential trends in borrowers' demands. But it may also change because of alterations that occur in the so-called risk evaluations of lenders, which alterations may be relatively more favorable to some would-be borrowers than to others. Loans to particular borrowers for whom the likelihood of default or less is believed to have risen relative to other borrowers will be less profitable or, perhaps, unprofitable at the same interest rate. Only at higher interest rates might such loans be considered profitable, and such higher rates may not be practicable to obtain. Furthermore, in some cases, risks of default might be judged so high as to virtually preclude lenders concerned with the safety of their funds from granting credit to particular would-be borrowers. In such an event, credit allocation would be determined by factors not measurable in an observed price. If these latter cases are important, it may be that some or all of an apparent differential impact of general credit restriction on small firms versus large firms is actually a consequence of lender adjustment to differen-

tial changes in their estimates of the risk attached to loans to certain would-be borrowers as economic expansion proceeds.

It is the task of this report to determine some of the facts that might help to measure the influence of the risk factor in determining the allocation of loan funds as between small and large business firms. In doing so it is recognized, of course, that other factors than risk, such as were mentioned above, may be at work in altering the allocation of credit between large and small firms. These must be allowed for as best we can. But they should not obscure the more important questions. As an economic expansion progresses, and the demand for funds outruns the supply, what happens to lenders' judgments as to the creditworthiness of borrowers? Are their judgments on creditworthiness of large borrowers likely to be more favorable vis-a-vis judgments on small borrowers' safety as loan risks? Do the judgments of lenders concerning large versus small borrowers change over thhe business cycle because of basic changes in the financial condition of large and small concerns, as reflected in financial ratios, commercial credit ratings, etc.? Are these judgments validated by actual lender experience? If small firms are more adversely affected, either by increases in gross cost or decreases in the supply of credit during a period of monetary restriction, are the restrictions justified by (1) commonly used ex ante measures or indicators of creditworthiness and (2) actual lender experience? The quest for answers to these and related questions is the reason for this report.

The plan of this study is, first, to show briefly to what extent firm size bears a relation to loan default and loss rates. The relation between size of firm and the ex ante measures are indicators of credit quality will then be investigated. The credit-quality indicators chosen for review are, first, general credit ratings provided by commercial agencies, and second, certain commonly used financial ratios. Next, an attempt will be made to determine whether these measures of creditworthiness are, in fact, generally valid in terms of the ultimate default or loss experience realized.

The next step is to find out how these measures or indicators of creditworthiness change over the business cycle. Attention will be paid to both the behavior of measures of credit quality of different sizes of firms and the ultimate experience of lenders.

Then the extent to which size of firm and credit standing are important in determining whether borrowers actually obtain credit will be looked into. Finally, the study seeks to determine whether any observed difference in the availability of credit to small business relative to large business is explainable in terms of loan costs, risks, and returns associated with loans to small as compared with large business borrowers.

Before turning to the substantive part of this report it may be well to comment on the general nature of the data employed and the rationale behind the use of the various materials. This report seeks to discover and to demonstrate general tendencies regarding credit risks in different size firms. Direct data on bank loans to small business which reveal elements of credit quality do not exist at present. For this reason, data have been utilized regardless of whether or not they pertain specifically to those lending institutions most heavily engaged in lending to small business. It is believed that the broad conclusions derived from the experience of particular lenders, whether or not they specialize in supplying the credit needs of firms

in the small-business field, are applicable in some degree to all lenders who face the problem of supplying the funds to various sizes of firms. Thus, for instance, evidence is cited on Government lending to various sizes of firms, even though in the recent past loans from public agencies have hardly been an important source of funds to firms of any size category. Nor has there been any hesitation in citing experience in the corporate-bond field, even though bond financing has in recent years been largely confined to firms ranking fairly high on the firm size scale.

In both of these cases it is felt that the evidence cited indicates quite clearly broad principles of loan experience and lending practices that may well be true, although, perhaps, with some variation in intensity, throughout the whole range of institutions supplying funds to American business concerns. In all candor, however, it must be admitted that much of the evidence produced may be regarded as being only partially relevant to the type of institutions supplying a substantial portion of the loan funds used by small-business firms. Accordingly, the ultimate judgment on the applicability of the evidence to the central problem of the paper must rest with the reader's judgment as to whether agreement of data from different sources is sufficient to establish a general tendency. Needless to say, this problem is not confined to economic matters, but affects medicine, law, engineering, and many other disciplines.

Having drawn data from a great many sources and having as its object only a search for general tendencies, this study has purposely avoided any fixed definition of small business in terms of size categories. Instead, our data distributions seek to show a range of experience, using the class intervals chosen by the research worker originally handling the data in accordance with his own view of what would produce the most fruitful results. Thus, while the smallest size group of firms analyzed in certain data drawn from the bank lending field is for firms of under $250,000 total assets, we have also cited data drawn from the records of a Government lending agency in which the smallest size class of firms has under $5,000 in total assets. Perhaps the greatest disparity between the limits of the lowest class interval and common ideas of what constitutes small business is found in the data on corporate bonds, where the smallest size group analyzed in one table consists of firms of under $5 million total assets.

Comparisons of firm size data shown in absolute class intervals are particularly difficult when they are made over long time spans, as is occasionally done. Size classifications also have been based, in some cases, on net worth rather than on total assets, depending on the available information, a practice believed to be justified by the strong correlation between net worth and assets of business firms in the aggregate. Still another difficulty is that, in some of the data, firms are classified within a given size group regardless of the industry in which they operate, with the result that the industry mix of the smaller size groups may be quite different from that of the larger size groups. However, such tests as have been made do not indicate that this vitiates the conclusions, though it is a matter to which further attention should be devoted.

Despite these variations in the definition of what constitutes small business in the materials used, and despite the fragmentary and spe-

cialized character of the data, the authors believe that the data presented are reasonably consistent and furnish evidence of general tendencies that are applicable throughout a wide range of firm sizes and to many types of lending institutions.

B. Summary of findings

This study, as has been indicated, seeks to determine if differences in the risk of lending and the rates of return on loans to firms of different size are a significant factor affecting any possible differential availability of credit to small-business firms relative to large firms. The study also inquires whether apraisals of the creditworthiness of small-business firms as well as certain measures of their underlying financial condition deteriorate more than do those of large-business firms as business activity increases and as the demand for credit outruns the supply. These questions have considerable relevance to the general problem motivating the small business financing study because if, in general, small firms are less desirable credit risks and their creditworthiness deteriorates relative to that of large firms in the expansion phase of the business cycle, one of the consequences might be a tendency for lenders to ration scarce credit resources more restrictively to small business than to large business in such periods.

Subject to the limitations of the data which were discussed in a general way above, it is possible to reach a number of tentative conclusions about the role of credit risk in determining the cost and availability of credit to small- versus large-business firms. Such conclusions, as emphasized above, are statements of tendency only and are not necessarily applicable to any particular size of firm which might be defined as small business. The conclusions follow:

(1) Small-size firms as a group typically experience a greater incidence of financial difficulty than do large firms. This is evidenced by loan experience and business-firm discontinuances. A similar tendency is shown by analysis of default rates on bonds. It does not mean that some firms of fairly small size do not have excellent financial experience nor that large firms never fail or default on their loans. Instead, it means that a greater proportion of small firms encounter financial difficulty than of large firms.

(2) Agencies engaged in rating business firms in terms of a composite credit appraisal and those engaged in rating marketable debt obligations generally recognize in their ratings the somewhat larger hazards of small business relative to large business enterprise. Larger proportions of the small firms bear credit ratings of less than the highest classification and more of the large firms bear ratings in the topmost class. Similarly, the marketable debt obligations of large corporations typically bear higher agency rating grades than those of the smaller concerns.

(3) Measures of credit standing such as commonly used financial ratios (current ratio, working capital to assets, net worth to debt, and profits to net worth) typically show a less satisfactory financial condition for small-business firms as a group compared with large-business firms. Again, this does not mean that some small firms do not have excellent financial ratios nor that no large firm ranks poorly in regard to one or more of the ratios analyzed.

(4) Both the credit ratings and the individual financial ratios analyzed in this paper are found to be useful in indicating the likeli-

hood of subsequent financial difficulty and losses to lenders. However, within any given credit rating classification the evidence of a relationship between firm size and loss experience is less pronounced than for all firms in the sample without regard to credit rating. This suggests that methods of determining credit worthiness commonly used by lenders have a considerable basis in experience and therefore that allocation of loan funds may be accomplished rationally without discrimination on the basis of the size of the borrowing firm, except insofar as size has a direct bearing on risk or cost factors.

(5) The evidence as to the predictability of the incidence of credit losses (not in terms of individual firms but in terms of broad groups of firms), together with the evidence that loss experience as a whole has been greater for small-size firms, suggests that lenders deliberately adopt somewhat lower credit standards in lending to small firms than would be required to obtain as few losses relatively as they obtain on loans to large firms.

(6) There is evidence that the financial ratios of small firms deteriorated somewhat more than those of the very largest firms during the recent expansion in business activity. This would suggest that lenders choosing to keep the same distribution of borrowers by size in their loan portfolio could expect their losses on small-firm loans to rise relatively more than their losses on loans to large-business firms made during the expansion phase of the business cycle. Such a differential increase in small-loan losses with consequent effect on total losses might be at least partially avoided by more careful selection of risks in small-firm loans. The extent to which lending institutions actually tended to eliminate marginal risks among their small-firm customers might therefore have altered the allocation of credit to small versus large firms. There is evidence that in those industries in which small firms obtained less bank credit while large firms obtained more credit from 1955 to 1956, the financial ratios of the small firms were not only generally poorer than those of the large firms but also were poorer than those of the small firms in other industries. There is also evidence that from 1955 to 1956 small-size firms obtained increases in bank credit as frequently as larger size firms only when they had high financial ratios.

(7) Analysis of a regional sample of 138 banks that appear to be reasonably representative of all member banks other than extremely large banks shows that losses for banks lending extensively to small business in 1955 were on the average larger than for other banks, after taking into account size of bank and variations in lending to other borrowers. Banks in a category defined as those whose loans to small business constitute more than 25 percent of all their loans experienced losses on the average some 10 to 11 cents more (per $100 of loans outstanding) than banks in another category whose small business loans were only 12½ percent to 25 percent of their loan volume, and 13 to 15 cents more than banks that extended less than 12½ percent of their loans to small business. On the other hand the banks lending more to small business obtained higher gross interest earnings on loans, and by an amount which was more than sufficient to offset differences in losses experienced in 1955.

(8) Higher loss rates on loans to small business relative to large business do not appear to account entirely for differences in rates of interest earned on loans to different size businesses according to data

derived from the above sample of banks. Thus, net returns before expenses (interest less losses) are typically higher for small business loans than for large business loans. This finding is consistent with results from the corporate bond field which suggest that differences in loss rates do not fully account for higher yields on bonds issued by smaller firms. However, in the case of interest earnings on bank loans, higher costs per dollar of loan due to smaller average size of loan may account for much if not all of the observed higher interest earnings of banks which lend extensively to small business, although further research will be needed to provide a firm basis for this observation.

2. CREDIT LOSSES ON SMALL-BUSINESS LOANS

Are losses on loans to small firms higher per dollar of loan than on loans to large firms? In view of the importance of this question it is rather surprising that we could discover only one body of published data that bears directly on this matter—and this relates to loans by a Government agency. However, collateral evidence is available that substantiates findings based on the Government lending data.

Direct evidence on experience of the Reconstruction Finance Corporation with loans to small and large firms exists in the tabulations of a sample of the direct (as distinguished from participating) loans to business firms made by that agency from June 1934 through June 1951.[3] The sample, numbering 2,851 loans out of about 17,000 loan authorizations made during the period, is unusually valuable because of the large number of loans involved and extensive financial records maintained.

First, it is necessary to indicate some of the character and some of the limitations of the data. Loans to business firms by Federal agencies have as a general rule been confined to firms unable to obtain credit from the usual sources on reasonable terms. In practice this has meant firms which were judged to be submarginal credit risks or which did not have local banking connections. On the other hand, the RFC insisted on adequate collateral security and by statute was limited to loans "so secured or of such sound value as reasonably adequate to assure repayments." The most common reasons that RFC loans were not bankable were that they were for somewhat longer terms than most commercial bank loans, the bank's legal limit would have been exceeded by such a loan, the bank lacked experience with the requested type of loan, or the loan was for a new enterprise. There is some evidence that the agency regarded its function as that of making higher risk loans than the commercial banking system desired or was able to make.[4]

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[3] This is part of the study entitled "Federal Lending and Loan Insurance," by R. J. Saulnier, Harold G. Halcrow, and Neil H. Jacoby (published for the National Bureau of Economic Research by Princeton University Press, 1958) (cited hereafter by title). For description of the sampling technique see the volume cited, pp. 432–433.

[4] Ibid., pp. 252–255.

TABLE 1.—*Default rates and realized loss rates on RFC direct business loans, by size of firm*

[Ratios, in percent]

Assets of borrowing firm (thousands of dollars) [1]	Number of outstanding loans, Dec. 31, 1951 [2]	Ratio of loans in default to all outstanding loans, Dec. 31, 1951		Ratio of realized net loss to amount disbursed, 1934-51	
		Number	Amount	On all loans [3]	On extinguished loans [3]
Less than 5	200	11.1	3.6	6.2	7.7
5 to 24	872	12.0	8.7	4.6	6.5
25 to 49	1,032	17.4	22.0	1.7	3.5
50 to 99	1,009	11.1	14.0	1.1	2.1
100 to 249	986	12.3	11.0	2.9	5.7
250 to 499	484	20.7	19.1	1.2	2.4
500 to 999	222	11.6	19.2	.9	1.4
1,000 to 4,999	165	18.7	11.6	.7	1.2
5,000 to 49,999	23	4.5	2.8		
50,000 and over	6	0	0		
All loans	[4] 5,700	[4] 13.2	[4] 9.6	[5] 1.3	[5] 2.1

[1] At time of loan application.
[2] Total number of active loans, Dec. 31, 1951.
[3] Based upon expanded amounts and numbers of loans from a sample of 2,851 out of 17,000 net RFC authorizations, 1934-51, covering all loans of $500,000 or more, roughly 50 percent of loans between $100,000 and $500,000, and 10 percent of loans of $100,000 or less.
[4] Includes 701 loans on which information on assets of borrowing firm at time of loan application was not available, on which the default rates were 8.1 percent (by number) and 8.4 percent (by amount).
[5] Includes loans on which information on assets of borrowing firm at time of loan application was not available, on which the loss rates were 1.9 percent (on all loans) and 2.3 percent (on extinguished loans).

Source: R. J. Saulnier, Harold G. Halcrow, Neil H. Jacoby, Federal Lending and Loan Insurance (published for the National Bureau of Economic Research by Princeton University Press, 1958), tables B-11, B-14, B-35, and pp. 432-433. (Cited hereafter by title.)

Table 1 shows default and loss rates by size of firm on the RFC direct business loans.[6] Default rates are quite low for the very large firms (assets of $5 million and over), and are higher for the eight asset size classes below $5 million, though each smaller size classification is not consistently higher than the preceding group. The loss rates show more consistent progression from low loss rates on loans to large-size firms to high loss rates on loans to small-size firms. Figured on the basis of loans that had been extinguished at the time of the survey, realized net losses per dollar of loan were more than 3 times as large on loans to firms with assets less than $25,000 than on all RFC loans as a group.

Somewhat less direct evidence on loss experience with small-business loans is provided by a special analysis of commercial bank experience made for this investigation. The procedure and results are described fully in section 7, but a few of the figures may be cited here. The banks included in the study (138 banks) were classified according to the importance of small-business loans (to concerns with assets under $250,000) in their total loan portfolio on the survey date, October 5, 1955, and by their losses per dollar of loan (all business and

[6] Measures of financial difficulty included in this paper are (1) default on principal or interest whether or not they eventuate in losses; and (2) actual losses on principal.

other loans) during 1955. Allowances were made for other factors associated with loss rates, such as size of bank, proportion of loans to farmers, to consumers, etc. The results showed that within deposit size groups of banks and taking into account bank lending other than to small business, the banks that loaned heavily to small business experienced definitely higher loss rates than the other banks. For example, the average loss rates for banks in which size of bank was taken into account were:

Loans to small businesses as a percentage of total loans	Number of banks	Average loss rate on all loans, 1955, (cents per $100 of loans outstanding)
0 to 12.49	22	9.4
12.50 to 24.99	60	12.6
25 and over	38	22.5
All classified banks	120	15.5

Similar results were obtained taking loan portfolio composition into account. Tables 17–19 in section 7 contain the detailed data and basis of bank classification. These differences in loss rates were compensated for by higher interest earning rates of banks which lend more to small business. This is discussed in some detail in section 7, below.

The most comprehensive study ever made of default experiences on corporate bonds produced results similar to those just reviewed, although of course the issuing of bonds is confined to companies of large or moderately large size. The study by W. Braddock Hickman for the National Bureau of Economic Research of corporate bond experience from 1900 through 1943 includes all large bond issues offered during the period (offerings of over $5 million to an individual issue) and a 10 percent sample of individual offerings below that amount. He finds that for the entire period 1900–1943 the default rates varied inversely with the size of the issuing firm, as follows:

Assets of obligor (millions of dollars):	*Default rate*[1] *(percent)*
Under 5	23.6
5 to 99	18.8
100 to 199	17.0
200 and over	16.4
All obligors	17.3

[1] Proportions of the par amount of bond offerings in the different obligor size classes at offering that went into default at any time between offering and extinguishment.

Source: W. Braddock Hickman, Corporate Bonds: Quarterly and Investment Performance. Occasional Paper 59 (National Bureau of Economic Research, 1957), table 1.

These results cover industrial, railroad, and public-utility bonds. Because the rails and utilities are specially dominated by large firms we confine the rest of our summary of the corporate bond findings to industrial bonds. Table 2 shows the proportion of bonds of industrial corporations that went into default, first, for all offerings made during the entire period 1900–1943, and second, for outstanding bonds at the beginning of 4-year periods.

Elimination of utility and railroad bonds makes it possible to show much more clearly the relationship between size and financial difficulty as indicated by bond defaults. The default rate on offerings of firms with under $5 million in assets was more than 4 times as great as that on bonds of firms having assets of $100 million and over. Moreover, as business conditions worsened in the early 1930's the default rate of bonds of firms with over $100 million total assets remained low while the rate on issues of the smaller-size firms rose very substantially. For the periods before 1920 the relative experience of large and small firms is decidedly less clear. This matter is discussed further in section 7.

A special study by Elizabeth T. Simpson of the National Bureau of Economic Research, covering all bonds issued by smaller industrial firms (using a relative size classification rather than fixed dollar size classes in order to take into account the changes in average firm size over the 44-year period) confirms the observation that bond offerings of larger firms have had a lower incidence of default than those of smaller firms that issue bonds. The average default rate, based on dollar amounts, for the smaller industrial firms (assets less than $5 million in 1940 and of comparable size in earlier years) was 40 percent; the average for all the larger firms was 19 percent.

TABLE 2.—*Default rates on bonds of industrial corporations, by asset size*

[Percent]

Period	Assets of obligor (millions of dollars)[1]			
	All sizes	Under 5	5 to 99	100 and over
	A. Proportion of offerings, 1900–1943, that went into default before 1944			
	19.6	38.0	25.3	8.8
	B. Proportion of outstanding bonds in good standing at beginning of 4-year periods that went into default during the period			
1900–1903	6.2	0	0	0
1904–7	14.7	----	10.2	22.0
1908–11	6.3	0	11.0	0
1912–15	10.6	0	7.3	6.0
1916–19	2.1	1.7	2.8	0
1920–23	2.8	9.2	6.9	0
1924–27	8.1	38.0	10.8	5.4
1928–31	8.0	24.2	12.8	.7
1932–35	23.6	63.5	33.5	4.2
1936–39	5.5	14.6	6.4	1.6
1940–43	2.9	13.6	7.7	0

[1] At date of offering for sec. A, and at beginning of indicated period for sec. B.

Source: W. Braddock Hickman, Corporate Bond Quality and Investor Experience (published for the National Bureau of Economic Research by Princeton University Press, 1958, in press), tables 106 and 108 and underlying tabulations.

Some collateral evidence is available from the number of firms discontinuing operations during 1949 and 1950, derived from Department of Commerce figures on changes in the population. Calculated rates of discontinuance are as follows:

Number of employees:	*Annual discontinuance rate*[1] *(percent)*
0 to 3	8.6
4 to 7	5.1
8 to 19	4.1
20 or more	.3
All size classes	7.5

[1] One-half of number of firms discontinuing operations 1949–50 as a percentage of the number in operation on Jan. 1, 1949.

Source: National Bureau of Economic Research tabulations based on Department of Commerce data.

The data on discontinuances include unincorporated businesses as well as corporations and are heavily weighted by retail trade and service firms. Only about half of the discontinuances are for reasons of failures; voluntary discontinuances, mergers, etc., account for the remainder. Nevertheless the results parallel the evidence of the previous materials on default and loss ratios based largely on lending and bond flotation.

To return to our question, are losses on loans to small firms higher per dollar of loan than on loans to large firms? The available evidence bearing directly upon credit losses, as has been seen, is fragmentary. The Reconstruction Finance Corporation data concerned loans to business firms that could not obtain credit from private institutions. The corporate bond data were confined to firms offering securities in the market and therefore not facing credit problems in the sense most commonly understood. Available evidence in the commercial bank field is confined to groups of banks distinguished by the importance of small business loans in their portfolios and does not directly indicate losses on particular loans. Nevertheless, all of these scattered bits of evidence indicate that loans to small business firms on the average encounter greater losses per dollar of loan than is the case with loans to large firms.

The foregoing statement must be interpreted with some care lest it be misunderstood. To the extent that lenders may calculate with reasonable accuracy expected losses on loans of various types, their chances of making suitable allowance for losses on loans to small firms are better because of the large number of such loans. In the case of loans to large borrowers a single loss may be catastrophic. A risk that can be calculated within a small margin of error may be less of a deterrent to lending than a risk that is very uncertain. Thus, the diversification principle and the "law of large numbers," by making the risks of small business lending more precisely calculable, may well operate to offset in part the fact that losses on loans to small business tend to be higher than on loans to large firms. Furthermore, the conclusion reached in the previous paragraph does not mean that individual lenders may not be able, by proper credit selection, to control their losses on loans to the small business category quite satisfactorily.

3. SIZE OF FIRM AND CREDIT RATING

Private credit rating services provide their subscribers with evaluations of the creditworthiness of business concerns. As a first step towards determining the relation between size of firms and ex ante measures of credit quality, therefore, it may be useful to determine how such a credit rating service at any one time rates concerns of varying size. How, for instance, do the credit ratings of concerns of $20,000 to $50,000 net worth, for instance, compare with the credit ratings of concerns of $50,000 to $100,000 net worth or with those of still larger size?

One credit agency currently publishes credit classifications for a large number of business concerns indicating for each listed firm its estimated net worth and its credit appraisal. For convenience we number these credit grades from I (highest) through IV (lowest). A random sample of the rated concerns, therefore, provides at any one time a tentative picture of the relative credit position of concerns in various size groups.[6]

Factors entering the credit appraisal process include proper legal organization and ownership identification, age of the concern, history and experience of management, financial condition and trend, and payment record. On the basis of these factors and within the limitations imposed by the available information an overall credit classification is assigned and maintained on a current basis. How important the assigned credit rating is in determining whether or not credit is granted is not known. Quite obviously the rating is supplemented by other information obtained by the lender. The ratings are designed primarily for the use of mercantile concerns that grant trade credit rather than for banks or other lenders. In many cases the extender of credit will wish to make his own analysis independently of the judgments of others. We would expect, however, that a considerable degree of similarity of judgment would exist between the credit agency and others who undertake their own credit analysis, where the information available is similar.

Random samples of the rated concerns were taken for two recent periods, September 1957 and January 1958. Results of the two samples were combined to increase the reliability of the estimates. The combined estimate is shown in chart 1. This chart indicates that the proportion of small-size concerns in the highest rating group is noticeably lower than the proportion of large-size concerns in that group. Over half of the concerns in the three smallest net-worth groups were rated as grade II, with only a minority in grade I, while about two-thirds of the concerns in the largest net-worth group ($125,000 and over) were listed as grade I. As one goes up the size scale, the proportion of concerns with highest rating steadily increases, while the

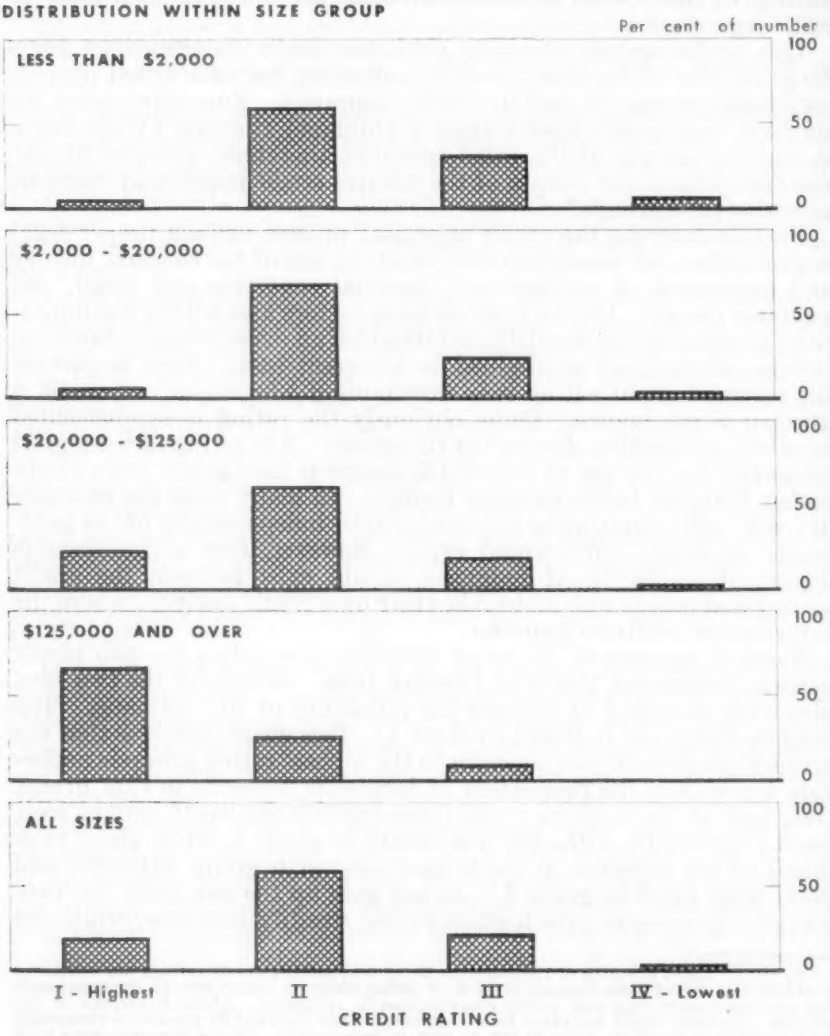
[6] Currently about one-fifth of the concerns listed bear neither credit ratings nor estimated financial size indications because of lack of information or other special circumstances. For the remainder, size and credit classification is indicated. About 5 percent of the concerns presently listed are rated by a designation that does not fit the above groupings, apparently because of inability to obtain certain information. These concerns have been omitted from our tabulations designed to show credit ratings by size classes and from chart 1.

proportions rated in the lower grades diminishes. Such a comparison, of course, presumes that a grade I rating for smaller concerns is comparable in some sense with a grade I rating for larger concerns. Within broad limits this apepars to be true when the measure of comparability is credit risk or loss experience, as we shall see in section 5, though it would be desirable to develop further evidence on this point.

Chart I 3-25

RELATION OF CREDIT RATING AND SIZE OF FIRM — NET WORTH

DISTRIBUTION WITHIN SIZE GROUP



Source: National Bureau of Economic Research sample of credit ratings of firms listed by a national credit-rating agency. Combined samples for September 1957 and January 1958. Unrated firms and those bearing ratings based solely on estimated net worth have been eliminated from these calculations. Totals for each size group add to 100 percent.

While the foregoing evidence applies to the total universe of business concerns, whether or not they were actually borrowers in the periods sampled, it is entirely possible that such a sample is weighted unduly by concerns that are semi-inactive or which, for other reasons, might properly be excluded from the universe of small businesses which are actual or potential users of loan funds. For this reason, it is well to check the results obtained against tabulations showing credit ratings of actual borrowers by size of firm. Unfortunately, the only such tabulation known to us consists of a sample of all the direct business loans disbursed by the Reconstruction Finance Corporation in the period from 1934 through 1951, and it is obvious that these data are not representative of borrowers from all lending institutions during this period. Nevertheless, the data are worth examining. Table 3 shows the number and dollar amount of direct (as contrasted with participating) loans made by the RFC by asset size of borrower and credit rating.

TABLE 3.—*Distribution of RFC direct business loans disbursed, 1934–51, by size of borrower and credit rating*

[Percentage distribution within asset classes of borrowers]

Assets of borrower (in thousands of dollars)	Credit rating						All loans, number or amount (in thousands of dollars)
	I (highest)	II	III	IV (lowest)	All other [1]	All loans	
	A. Number of loans						
Less than 5	0.6	51.0	21.3	3.9	23.2	100	1,156
5 to 24	.7	41.2	26.3	5.2	26.6	100	3,006
25 to 49	2.3	42.6	26.9	4.0	24.2	100	2,278
50 to 99	3.3	42.4	22.0	2.5	29.7	100	2,081
100 to 249	6.2	40.4	21.8	4.3	27.4	100	2,092
250 to 499	8.0	38.1	23.9	1.9	28.1	100	1,189
500 to 749	7.6	43.5	18.6	5.9	24.4	100	494
750 to 999	6.3	38.3	14.6	4.9	35.9	100	239
1,000 to 4,999	9.8	40.4	21.2	1.4	27.2	100	523
5,000 to 49,999	7.4	51.8	14.2	6.2	20.5	100	138
50,000 and over	38.5	53.8	[2]	[2]	7.7	100	13
Total [3]	3.2	41.3	23.0	3.7	28.7	100	16,043
	B. Amount of loans						
Less than 5	0.9	51.5	24.6	3.2	19.8	100	3,245
5 to 24	1.4	45.5	23.6	4.3	25.1	100	17,158
25 to 49	2.3	42.7	27.0	2.0	25.9	100	26,826
50 to 99	3.2	45.1	21.9	2.0	27.8	100	48,789
100 to 249	7.1	42.7	19.1	4.0	27.1	100	102,656
250 to 499	7.3	38.0	25.0	3.6	26.1	100	83,826
500 to 749	5.5	42.3	26.1	6.5	19.7	100	65,891
750 to 999	9.2	48.1	16.9	4.2	21.6	100	46,201
1,000 to 4,999	13.1	44.7	19.1	1.2	21.9	100	228,595
5,000 to 49,999	10.5	58.3	9.6	2.8	18.7	100	214,779
50,000 and over	24.6	74.3	[2]	[2]	1.1	100	136,462
Total [3]	9.7	55.4	14.0	2.2	18.8	100	1,159,640
All loans:							
Number	519	6,663	3,685	600	4,606	.....	16,043
(Firms included with asset size unknown)	(24)	(1,059)	(581)	(86)	(1,084)	.....	(2,834)
Amount (in thousands of dollars)	112,540	642,151	161,964	25,454	217,531	.....	1,159,640

[1] Loans to firms with no rating or for which credit reports were entirely lacking (firms just organizing and others), and a very few loans rated in between the 4 rating grades.

[2] No loans in this class.

[3] Includes 2,834 loans, amounting to $185,211,000, for which information on asset size of borrower was not available.

Sources: National Bureau of Economic Research survey of RFC direct business loans, exclusive of participations and national-defense loans; for number and amount of loans, see Federal Lending and Loan Insurance, table B–1.

The table (sec. A) shows that the percentage of the number of loans to borrowing firms in the highest credit-rating grade (I) was negligible in the lowest size class, but increased fairly steadily with larger sizes of firms up to the largest class ($50 million and over in total assets). On the other hand, the proportion of borrowing concerns in the next to the lowest credit-quality class (III) diminished fairly steadily from the small size firms on up to the largest size firms. The proportion of firms in the lowest class (IV) was small throughout. These conclusions are supported by the tabulations in table 3, based on dollar amount of loans (sec. B).

Comparison of the ratings of firms receiving RFC loans with the previously cited sample tabulations of the recent credit ratings of the universe of business firms, although the periods covered by the data are different and the criteria of size is total assets in the former and net worth in the latter, suggests that a lower degree of creditworthiness of small firms characterizes borrowing firms as well as the universe of business firms. It also suggests that the range of potential borrowing firms, for practical purposes, must be much narrower for lending institutions than the range consisting of the entire universe of business firms. At times the very best firms may need little credit and the poorest firms may not be sufficiently creditworthy. On the other hand, the fact that the RFC regarded its operation as one of supplying credit to concerns in the submarginal risk category, but which would, nevertheless, have reasonable chance for repayment of their loans, may partly account for the fact that the firms to which credit was extended included few of either the very highest or the very lowest rated firms.

Turning now to the corporate-bond area, as shown in table 4, it appears that a greater dollar volume of issues of smaller firms tends to warrant ratings in the lowest five grades (V–IX), while issues of larger firms tend to be more frequently assigned ratings in the highest credit-rating grades (I–IV). Table 4 shows only tabulations of bond issues for industrial corporations in which, unlike railroads and utilities, offerings are quite often unsecured (debentures) and, when secured, are frequently senior rather than junior liens, that is, not preceded by other issues. Apparently, the market requires that more of the dollar volume of corporate-bond issues of small firms be senior liens and a smaller percentage be unsecured than in the case of larger firms, as may be seen from the last two columns of the table. Even so, the better legal position against earnings and the more tangible security required of small firms issuing bonds as compared with large firms does not, in the eyes of those who rate corporate bonds, offset other considerations that prompt them to give the offerings of small corporations less favorable credit ratings than the offerings of larger firms.

Three sources of evidence (from a sample of all business firms, firms which borrowed from the RFC, and industrial corporations which issued bonds) thus suggest that agencies appraising the creditworthiness of business concerns find that small concerns are somewhat more liable to encounter financial difficulties than their larger counterparts. It seems likely, therefore, that the conclusion of the previous section that small firms actually experience financial difficulty more frequently than large firms is recognized by professional credit appraisers. The next section will explore the question whether these evaluations are consistent with tangible differences in financial ratios.

TABLE 4.—*Industrial bonds outstanding in 1944 by agency ratings and lien position and by asset size of obligor*

Assets of obligor (millions of dollars)	Number of bond issues	Amount of bond issues (millions of dollars)					
		Total	Agency rating [1]			Lien position	
			I-IV (highest)	V-IX (lowest)	Not rated	Senior liens	Debentures (unsecured)
Under 0.5	19	5.5	0.0	0.0	5.5	5.5	0.0
0.5 to 0.9	10	1.1	0.0	0.0	1.1	1.1	0.0
1.0 to 1.9	19	16.8	0.0	14.6	2.2	16.8	0.0
2.0 to 4.9	67	20.2	4.5	7.8	7.9	9.0	10.1
5.0 to 99.9	247	816.7	312.4	241.8	262.5	291.7	488.7
100.0 to 199.9	33	474.7	321.7	0.0	153.0	183.9	283.9
200.0 and over	59	1,531.5	1,253.4	10.5	267.6	381.2	1,058.3
All obligors [2]	592	2,939.8	1,892.0	285.1	762.7	947.8	1,841.0
		Percentage distribution within asset classes					
Under 0.5		100.0	0.0	0.0	100.0	100.0	0.0
0.5 to 0.9		100.0	0.0	0.0	100.0	100.0	0.0
1.0 to 1.9		100.0	0.0	86.9	13.1	100.0	0.0
2.0 to 4.9		100.0	22.3	38.6	39.1	44.6	50.0
5.0 to 99.9		100.0	38.3	29.6	32.1	35.7	59.8
100.0 to 199.9		100.0	67.8	0.0	32.2	38.7	59.8
200.0 and over		100.0	81.8	0.7	17.5	24.9	69.1
All obligors [2]		100.0	64.4	9.7	25.9	32.2	62.6

[1] Agency rating denotes composite of the letter ratings (Aaa, etc.) of the 3 bond rating agencies, Fitch, Moody's, and Standard & Poor's.
[2] Total includes 138 issues on which asset size of obligor was not determinable.

Source: Underlying tabulations of the corporate bond research project, National Bureau of Economic Research.

4. SIZE OF FIRM AND FINANCIAL RATIOS

The preceding section indicated that in the classifications made by credit rating agencies smaller concerns take a lower position, on the average, than large firms, indicating greater credit risk. Since the process whereby the agencies arrive at their evaluations is based in part on analysis of financial ratios it is perhaps useful to determine if these evaluations of small versus large firms are supported by differences in the underlying financial condition of different firms. In this section, we can go part of the way toward confirming the finding of the previous section by determining whether commonly used financial ratios reflect a relatively more risky credit standing of small firms vis-a-vis large firms.

We have selected for analysis four types of financial ratios. First, the "current ratio," or ratio of current assets to current liabilities, provides an indication of the degree to which short-term indebtedness is covered by presumably easily realized assets. Second, the ratio of working capital to total assets is a measure of the liquidity of the enterprise relative to its aggregate size. Third, the ratio of net worth to debt suggests the relative importance of owner-provided funds and borrowed funds. These three ratios were found by Charles Merwin in a study of the midthirties to be useful to some degree in

portending discontinuance of business operations although they are by no means infallible as a predictive device for individual firms.[7] Some firms with poor ratios were found to survive while others with relatively good ratios failed. Nevertheless, the ratios chosen are probably among those finding wide acceptance by credit appraisers and therefore useful in determining whether their appraisals reflect the underlying financial condition of the firms analyzed.[8] The previous description of the manner in which credit agencies arrive at overall rating classifications, however, indicates that the financial condition is only one element in the credit appraisal.

The fourth type of ratio, of which we have included two variants, the ratio of profits to net worth and the ratio of profits to assets, is indicative of the rate of return derived by the business firm. In the case of small businesses particularly, however, the measurement of profits is surrounded by a great deal of uncertainty. Small concerns can and do survive for years on a zero or negative rate of profit, perhaps because the owner-manager pays himself a salary out of line with his actual earning capacity. Or profits may be greatly overstated because depreciation of the firm's capital is inadequately estimated. Tax considerations also have important effects on the manner in which profits are calculated. Partly for these reasons, reported profit ratios have been found to be less reliable than the other ratios mentioned above in predicting discontinuance, and they may be seriously misleading for comparing the profitability of small and large firms. Nevertheless, we have included them where the data permit, since their changes over time for a given size group of firms may have a bearing on ability to repay indebtedness. Their bearing even on this point, however, needs to be checked against the other ratios or related information.

Quarterly data on the financial condition of American manufacturing corporations are published by the Securities and Exchange Commission (SEC) and Federal Trade Commission (FTC). Breakdowns are given by size of firm and by industry but, unfortunately, the published data are not cross-classified by these two criteria. Hence we must content ourselves with the analysis of firms by size groups alone. Clearly the credit ratios of small versus large firms must be analyzed at several points in time since the ratios change over the business cycle and, in fact, may themselves be affected by the availability of and need for credit by different size firms. Table 5 shows, for the 2 smallest size classes of firms and the 2 largest size classes of firms, the 3 capital and debt ratios found to be useful indicators of future financial difficulty as well as the ratio of profits to net worth.[9] The terminal points in time are the second quarter of 1954,

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[7] See Charles L. Merwin, Financing Small Corporations in Five Manufacturing Industries, 1926–36 (National Bureau of Economic Research, 1942), ch. 4 for record of the liquidity and debt ratios in portending discontinuances among firms in five industries characterized by small units. For further analysis of Merwin's data see sec. 5, below.

[8] Another ratio that is widely used in appraising a firm's ability to repay long-term debt is the times-charges-earned ratio. Hickman's study of corporate bond quality and experience referred to above demonstrates the value of this ratio in indicating default risk on bond issues. (See footnote 11 below.) For further examples of ratios used in credit analysis see Roy A. Foulke, Practical Financial Statement Analysis (4th edition, McGraw-Hill, 1957).

[9] In accordance with the general practice in credit analysis, credit ratios in this paper carry the decimal point two places to the right of its proper location. Thus, a firm having current assets twice as large as current liabilities would have a ratio of current assets to current liabilities of 200. This practice is observed in all financial ratios except those having to do with profits which have the decimal point correctly placed.

chosen because it was close to the lowest point of the business contraction of 1953–54, and the second quarter of 1957, the latest period for which data were available when this study was prepared and also a period of peak activity and one during which a restrictive credit policy was in force.

TABLE 5.—*Average financial ratios for 2 smallest and 2 largest firm-size groups, and for all firms, manufacturing, second quarters, 1954–57*

[Ratio for second quarter of year [1]]

Type of ratio and year	Assets of firm (thousands of dollars)				
	Under 250	250 to 999	All firms	50,000 to 99,999	100,000 and over
Current assets to current liabilities:					
1954	196.0	233.0	257.0	281.0	249.0
1955	187.0	228.0	260.0	284.0	256.0
1956	177.0	219.0	250.0	288.0	254.0
1957	186.0	207.0	243.0	272.0	244.0
Working capital to total assets:					
1954	34.0	36.3	34.1	36.0	30.8
1955	29.6	36.1	34.5	37.4	31.4
1956	28.8	35.5	33.7	37.2	31.0
1957	29.9	34.1	32.2	35.0	29.2
Net worth to debt:					
1954	139.0	185.0	198.0	210.0	189.0
1955	122.0	177.0	200.0	212.0	188.0
1956	107.0	157.0	188.0	221.0	190.0
1957	114.0	137.0	185.0	198.0	189.0
Profits to net worth:					
1954	8.1	8.1	10.4	8.8	12.3
1955	5.3	9.4	13.0	11.8	15.0
1956	12.0	10.7	13.0	12.3	13.6
1957	11.1	10.0	11.6	11.1	12.5

[1] See text footnote 7 for statement concerning location of decimal point in credit ratios used in this paper.

Source: Computed from data published in Quarterly Financial Report for Manufacturing Corporations, Securities and Exchange Commission and Federal Trade Commission.

In general, the financial ratios for the smallest size firms (assets under $250,000) were lower than those for the average of all manufacturing firms in each period covered in the table. They are also lower than those for the next larger size group except in the ratio of profits to net worth and usually lower than those for the two largest size classes of firms. There are some exceptions in the latter case. In the second quarter of 1957 the ratio of profits to net worth for the very smallest size class was equal to that of the firms of $50–$99 million asset size. Also in 2 of the 4 years the smallest firms had ratios of working capital to total assets equal or greater than the very largest firms. Otherwise, however, the data seem to support the findings of the previous section that small firms as a whole tend to exhibit a less favorable financial condition when judged by objective criteria of creditworthiness than do large firms. A later section will comment upon changes over time in the financial ratios of small versus large firms.

A qualification that attaches to the data in table 5 is that the manufacturing industries in which small firms are important are often not the same industries as those in which large firms are important. Hence the differences between the ratios for the small and large groups might reflect differences in the industry composition of the two groups, since financial requirements and standards vary considerably from one industry to another. As noted above, the pub-

lished SEC–FTC data do not enable one to make allowance for this possibility.

Our next evidence on the relation of firm size to financial ratios, however, does make allowance for this factor. It comes from financial statements collected from bank credit departments and published by the Robert Morris Associates, an organization of commercial bank lending officers. Here again, however, there are some limitations on the data. In general the statements are for firms with banking connections and therefore are most useful in determining the type of customers served by commercial banks, the major institution in the small business loan field. Because of this, however, the firms represented are presumably creditworthy firms in some or most years. Analysis of these data therefore may be more indicative of the regular customers of banks than of the universe of business firms. Data collected from lenders are, of course, generally subject to such limitations.

To the extent that the Robert Morris Associates may be representative of the universe of firms or at least the universe of firms that are potential customers of banks, analysis of the financial ratios mentioned above reveals that the average small firm does not have as good a record as the average large firm. For the years from 1952 to the present some 43 industries or lines of business in manufacturing, wholesale trade, and retail trade are represented continuously in the Robert Morris Associates data in both the largest size group (assets $1 to $10 million) and the smallest size group (under $250,000).[10] Table 6 shows how average ratios of the composite of 43 industry groups of firms within each of these two-size groups and the intermediate one ($250,000 and less than $1 million) compare in 1954, 1955, and 1956, the latest date for which figures have been published.

TABLE 6.—*Average financial ratios for small, intermediate, and large firm-industry groups, 1954–56*

[Sample of 43 industries in each group]

Type of ratio and year	Assets of firm (thousands of dollars)		
	Under 250 (small)	250 to 1,000 (intermediate)	1,000 to 10,000 (large)
Current assets to current liabilities:			
1954	230.0	226.0	266.0
1955	227.0	[1] 215.0	244.0
1956	226.0	[1] 212.0	235.0
Working capital to total assets:			
1954	41.9	40.9	43.7
1955	41.4	[1] 39.8	41.8
1956	41.7	[1] 39.6	40.5
Net worth to debt:			
1954	171.0	161.0	196.0
1955	165.0	147.0	172.0
1956	165.0	139.0	164.0
Profits to net worth:			
1954	4.50	4.88	6.04
1955	7.10	[1] 6.60	7.75
1956	8.38	[1] 7.59	8.14

[1] Number of industries in sample equals 42. Information for one industry not available.

Source: National Bureau of Economic Research tabulations of data from annual statement studies of Robert Morris Associates.

[10] A list of the industries is included in appendix B, p. 103.

Much the same conclusion emerges from analysis of the Robert Morris Associates data as was previously obtained from the SEC–FTC data on manfacturing industries. Looking first at the comparison between the smallest and largest categories, in 9 out of the 12 comparisons, the small firm ratios show up as less adequate than the large firm ratios. Exceptions occur in 1 of the 3 years in the working capital to total assets, net worth to debt, and profits to net-worth ratios. Secondly, the ratios for the intermediate size group are in every instance lower than the ratios for the largest size group. It must be admitted, however, that many of the differences between the ratios for the smaller and larger firms are slight; generally the differences are greater in 1954 and smaller or more favorable to small firms in 1955 and 1956. Moreover, the ratios for the intermediate size group in all but one case (the ratio of profits to net worth in 1954) are lower than ratios for the smallest size group. No explanation can be offered for this finding other than to observe that the voluntary procedure of collecting these statements might conceivably produce a sample of statements for the very smallest firms that were regular customers of banks which were better than those of intermediate size firms. Having no proof one way or the other of this conjecture it can only be noted that an anomaly exists in the data at this point.[11] In the case of the SEC–FTC data for manufacturing corporation (table 5) the ratios for the under $250,000 asset size group were decidedly lower than those for the $250,000-$999,999 size group. In the absence of more conclusive evidence to the contrary, however, it would seem safe to conclude that the finding of the previous section, namely that small firms as a rule are characterized by lower measures of credit worthiness than are large firms, has not been reversed and, indeed, has on the whole been substantiated by analysis of financial ratios.

5. CREDIT LOSSES, CREDIT RATINGS, AND FINANCIAL RATIOS

The preceding sections have shown that small firms typically occasion greater credit losses, generally have lower credit ratings, and on the average possess less adequate financial ratios than large firms. Some direct evidence on the relation between the indicators of credit quality (i. e., the ratings and the ratios) and actual credit losses is available and is summarized below.

The Saulnier, Halcrow, & Jacoby material on RFC loan experience cited above shows the incidence of loan default for firms with different credit ratings at the time of borrowing. Since about 7 out of every 10 RFC loans were to firms with credit agency ratings and since the history of the loans is known through 1951, it is possible to determine how well the ratings indicate the incidence of future credit difficulties. The record is remarkably good (table 7). There is a steady increase in the default rate based on dollar amounts of loans outstanding at the end of 1951 as one moves from the highest to the lower credit ratings.[12]

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[11] The tendency for the intermediate size firms to have lower ratios than the smallest size firms appears to be fairly widespread in the Robert Morris Associates data. For example, of the 42 industries included in table 6 in 1956 the average ratio of current assets to current liabilities is lower for the intermediate group than for the smallest group in 27 industries, the same in 2, and greater in 13.

[12] Some four-fifths of the number and amount of the loans outstanding at the end of 1951 originated between June 1948 and June 1951. Federal Lending and Loan Insurance, p. 451.

Whereas only half of 1 percent of the loans to firms with best credit ratings eventuated in default, about 20 percent of the loans to firms with the poorest ratings went into default. The percentages based on the number of loans show a less regular progression—but their relation to the percentages based on dollar amount is of interest, for they suggest that in the higher grades the average defaulted loan was smaller than the average size of all loans within the grade whereas for the lower grades the defaulted loans were larger than the average size within the grade. This tendency also appears in some of the other measures of experience on loans of different grade, given below.

TABLE 7.—*Default rates on RFC direct-business loans outstanding Dec. 31, 1951, by credit rating of firm at time of application*

Credit rating	Ratio of loans in default to all active loans	
	Number	Amount
	Percent	*Percent*
I (highest)	4.3	0.5
II	14.0	5.0
III	15.2	16.9
IV (lowest)	11.9	20.5
All loans	[1] 13.2	[1] 9.6

[1] Includes default rates on loans for which credit rating information was not available. These default rates were 12.0 percent by number, 15.8 percent by amount.

Source: Federal Lending and Loan Insurance, table B–16, p. 458.

It is perhaps well to remember that defaulted loans do not necessarily result in losses, although they may occasion great embarrassment both to the borrower and the lender. It is the actual losses on loans made to firms in each credit-rating grade that is the most relevant figure from the lender's point of view. These are shown in table 8 relative to all RFC loans disbursed and extinguished during the period 1934–51. Very obviously, of all loans extinguished over the entire period, the loans to firms in the poorest credit-rating class resulted in the highest actual loss experience, while those in the highest rating class produced the lowest loss experience. This difference is also reflected, although not as sharply, when losses are measured relative to all loans disbursed.

TABLE 8.—*Relation of credit ratings and loss experience on RFC direct business loans, 1934–51*

[In percent]

Credit rating	Dollar amount of losses relative to all loans—	
	Disbursed	Extinguished
I (highest)	0.1	0.1
II	1.3	1.9
III	.3	.8
IV (lowest)	1.2	3.8
All loans	1.3	2.1

Source: Special tabulations of data from Federal Lending and Loan Insurance.

At this point it is useful to inquire whether within groups of firms in any single credit-rating grade, loans to small-business firms are more likely to result in higher realized losses than loans to large firms. Table 9 presents the loss rates on the same group of loans as shown in table 8, but now classified by both size of firm and credit rating. From these data it is possible to reach the tentative conclusion that at least within the highest (I) and two lowest (III and IV) rating groups, loss experience is no different between loans to small and large firms. Only in the second rating group (II) is there a noticeable tendency for loss experience to be worse for small-size firms, which may suggest the desirability of further differentiation within this rating group. Apparently, however, to the extent that we can generalize from the experience of a public lending agency, the caution of lenders and the performance of independent credit appraisers can result in a fairly orderly selection of risks by lending institutions without specific regard to size of borrower. Table 9 seems to indicate that loans made by the RFC to small businesses with satisfactory credit ratings are as sound as loans to large businesses with similar credit ratings.

TABLE 9.—*Loss rates on RFC direct business loans by size of borrower and credit rating*

[Percent]

Assets of borrower (thousands of dollars)	Credit rating				
	I (highest)	II	III	IV (lowest)	All firms [1]
	A. Loss rate based on loans disbursed, 1934–51				
Less than 5	0	12.0	0	0	6.2
5 to 24	0	9.8	.3	.4	4.6
25 to 49	0	2.5	.1	3.9	1.7
50 to 99	0	.9	0	25.3	1.1
100 to 249	0	4.7	.9	.9	2.9
250 to 499	0	1.3	1.3	0	1.2
500 to 749	2.3	.8	.7	0	9
750 to 999	0	2.0	0	.2	1.0
1,000 and over	0	1.0	0	0	.7
All firms [2]	.1	1.3	.3	1.2	1.3
	B. Loss rate based on loans extinguished, 1934–51				
Less than 5	(3)	12.9	0	0	7.6
5 to 24	0	12.4	.5	.6	6.5
25 to 49	0	4.2	.2	7.2	3.5
50 to 99	0	1.3	0	25.3	2.1
100 to 249	0	7.4	3.3	2.8	5.7
250 to 499	0	2.5	3.3	0	2.4
500 to 749	4.1	1.1	1.3	0	1.4
750 to 999	0	2.7	0	.3	1.5
1,000 and over	0	1.6	0	0	1.2
All firms [2]	.1	1.9	.8	3.8	2.1

[1] Includes loans to firms with no rating or for which credit reports were entirely lacking (firms just organizing, and others), and a very few loans rated in between the 4 rating grades.
[2] Includes loans to firms for which size not known.
[3] None of loans extinguished by Dec. 31, 1951.

Source: Special tabulations of data from Federal Lending and Loan Insurance.

As might be suspected, the relationship of any single financial ratio to the subsequent experience of the loan is not nearly as direct as is the relationship between loan difficulty and credit rating, which usually is based on many different observations on the underlying financial condition of the concern as well as the general financial responsibility of those in control of the business. Table 10 shows various measures of loan difficulty (default, foreclosure, incidence of loan losses, and realized losses) for RFC loans classified by current ratio and the ratio of net worth to total debt of the borrowing firm at the time the loans were authorized. The figures are suggestive but not conclusive in showing that loans to firms with poorer financial ratios are somewhat more prone to encounter difficulty. Marked differences in experience are apparent only when the ratios are at extreme levels.

TABLE 10.—*Relation of borrower's financial condition at time of loan authorization to measures of loss experience on RFC direct business loans*

Borrower's financial ratios at time of loan authorization	Number of loans outstanding Dec. 31, 1951	Ratio of loans in default to all active loans outstanding at end of 1951		Ratio of foreclosed loans to all loans disbursed, 1934–51 [1]		Ratio of loss loans to all extinguished loans, 1934–54 [1]		Ratio of realized net loss to amount disbursed, 1934–51 [1]	
		Number	Amount	Number	Amount	Number	Amount	On all loans made	On extinguished loans
Current assets to current liabilities:		*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
Less than 100	1,761	17.8	17.5	8.3	15.8	10.8	25.0	[2] 2.3	3.9
100 to 149	901	12.0	11.4	5.4	3.7	5.9	4.6	1.0	1.6
150 to 199	467	14.5	8.6	4.5	2.4	5.7	2.4	0.3	.5
200 to 299	547	11.9	2.0	3.6	1.0	4.1	2.3	.4	1.1
300 to 499	308	13.9	8.0	5.2	1.7	6.6	3.7	.7	1.7
500 and over	314	7.5	11.9	4.9	2.7	6.5	3.5	2.2	3.1
Net worth to total debt:									
Negative ratio [3]	29	27.4	18.5	29.1	54.8	51.2	64.0	(4)	(4)
Less than 50	445	13.8	16.2	7.8	4.9	9.4	6.1	(4)	(4)
50 to 90	959	14.8	8.6	7.7	3.0	10.0	4.1	(4)	(4)
100 to 190	1,249	12.5	3.2	5.4	2.6	7.3	4.9	(4)	(4)
200 to 390	884	20.1	23.5	6.9	3.8	5.6	3.8	(4)	(4)
400 to 990	599	7.5	3.3	5.0	1.9	7.6	2.5	(4)	(4)
1,000 and over	337	15.8	14.9	3.3	3.2	2.3	4.3	(4)	(4)

[1] See table 1, footnote 2 for number of loans in sample.
[2] Loss on 6 loans in process of settlement at end of 1951 is excluded.
[3] Liabilities in excess of assets.
[4] Not available.

Source: Federal Lending and Loan Insurance, tables B-16, B-22, B-29, B-35.

Further evidence on the value of financial ratios as indicators of credit worthiness is presented in table 11, which shows for five different industry groups of small firms that those firms discontinuing the filing of an income-tax return in the 1930's had almost universally lower financial ratios than sets of companies drawn from the same industries and of roughly the same size that continued to file income-tax returns. The contrast between the average financial ratios of successful and unsuccessful companies is apparent even in the fifth or sixth year before the latter's discontinuance. Since every effort was made to remove firms undergoing merger and consolidation from the sample of discontinuing firms, Charles Merwin, the author of the study to which we refer, states:

*** * * in the great majority of instances the owners [of the unsuccessful firms] lost most, if not all, of their equity.**

Thus, this body of evidence suggests quite clearly that low values of the commonly used financial ratios are associated to a considerable extent with future financial difficulty.

TABLE 11.—*Average financial ratios by years before discontinuance for unsuccessful companies (U), and comparable ratios for successful companies (S), 1926–35* [1]

[Percent]

Period before discontinuance of business	Banking companies		Men's clothing companies		Furniture companies		Stone and clay products companies		Machine tool companies	
	U	S	U	S	U	S	U	S	U	S
	Current assets to current liabilities									
6 years	1.0	1.2	2.4	2.3	1.8	2.9	1.1	2.4	1.6	2.1
5 years	1.0	1.3	2.3	2.4	1.7	3.1	1.2	2.3	1.6	2.1
4 years	.7	1.2	2.3	2.4	1.6	3.4	1.0	2.1	1.4	2.0
3 years	.7	1.2	2.1	2.4	1.3	3.6	.9	2.0	1.4	1.8
2 years	.6	1.3	1.9	2.6	1.0	3.6	.8	1.9	1.1	1.7
1 year	.4	1.2	1.5	2.4	.8	3.4	.6	1.7	1.1	1.6
	Net working capital to total assets									
6 years	0.011	0.050	0.493	0.474	0.293	0.421	0.443	0.255	0.189	0.235
5 years	−.009	.056	.470	.474	.282	.423	.060	.242	.169	.223
4 years	−.106	.047	.467	.474	.250	.423	.004	.221	.121	.201
3 years	−.109	.049	.410	.467	.137	.425	−.035	.204	.121	.179
2 years	−.200	.054	.376	.476	.010	.407	−.085	.181	.056	.163
1 year	−.267	.048	.237	.459	−.111	.393	−.183	.157	.015	.159
	Net worth to total debt									
6 years	1.9	2.3	1.7	1.7	1.5	2.8	1.5	3.5	2.0	2.7
5 years	1.6	2.4	1.6	1.7	1.5	2.9	1.5	3.3	2.1	2.7
4 years	1.2	2.3	1.7	1.9	1.3	3.2	1.3	3.2	1.7	2.6
3 years	.9	2.4	1.5	1.8	1.0	3.5	1.2	3.0	1.7	2.4
2 years	.6	2.3	1.3	2.0	.8	3.7	1.1	2.8	1.1	2.2
1 year	.5	2.2	.8	1.9	.4	3.5	.7	2.5	.9	2.0
Number of companies in sample	47	81	41	46	38	66	43	70	31	118

[1] Unsuccessful companies (U) are those that discontinued filing an income tax return sometime during 1932–36, successful companies (S) are those that filed returns continuously during 1926–36. Ratio for successful companies is an average of surviving company ratios weighted by the number of times each calendar year appears in the given year before discontinuance for the matching sample of discontinued firms. For detailed explanation see the source, pp. 134–136.

Source: Charles L. Merwin, Financing Small Corporations in Five Manufacturing Industries, 1926–36 (National Bureau of Economic Research, 1942), worksheets underlying charts 6–10.

The data presented in this section suggest that agency credit ratings and commonly used financial ratios have a considerable value in predicting future financial difficulties of business firms.[13] The record is most clear, as might be expected, in the case of the credit ratings which summarize the general financial condition of the business firms and business history of the owner or those in control. The somewhat less marked relationship between individual financial ratios and losses than the relationship between credit ratings and losses may be explainable in terms of the process of credit analysis. In cases where one of the financial ratios is extremely bad, there may be other circumstances, i. e., other good ratios or strong points of an intangible nature, that would cause the credit analyst to appraise the concern's financial condition differently. Such a process would go far in explaining some of the anomalies mentioned previously in that in some cases the borrowers with less favorable financial ratios may have been those which were stronger in other respects. These observations would lead to the conclusion that credit ratings taking account of several financial ratios and also of intangible factors, are better indicators of the degree of credit risk than any single financial ratio considered separately. In any case, however, reference is made only to broad tendencies among groups of firms. An individual firm with a low current ratio or a poor credit rating is by no means foredoomed to failure, and high ratios and high ratings are not the only requirements for success.

6. RECENT CHANGES IN THE CREDITWORTHINESS AND USE OF CREDIT BY SMALL BUSINESS

It has been indicated in the preceding sections that financial ratios and credit ratings are on the whole lower for smaller size firms than for large ones, and that credit experience is on the whole worse. If, in addition, these measures of credit risk deteriorate more or improve less for small firms than for large firms as a general business expansion proceeds and the demand for credit increases relative to the supply, loans to small business might well become less freely available than loans to large business. On the other hand, if the creditworthiness of small business tends to improve relative to large business during the recovery and boom period, any differential inability of small firms to receive credit would be more difficult to explain.

When the research now under way is completed labor in 1958, it is contemplated that a more definitive answer can be made as to what

[13] The corporate bond study referred to earlier provides additional evidence as to the value of agency ratings and financial ratios as indicators of default risk. The default rates on industrial bond issues, 1900–1943, classified by rating grade and by times-charges-earned ratio at time of offering were:

Agency rating	Default rate	Times-charges-earned ratio (percent)	Default rate
I (highest)	0.4	3.0 and over	4.0
II	3.2	2.0 to 2.9	7.4
III	8.8	1.5 to 1.9	16.5
IV	18.5	1.0 to 1.4	16.0
V–IX (lowest)	32.7	Under 1.0	9.7

Source: W. Braddock Hickman, Corporate Bond Quality and Investor Experience (published for the National Bureau of Economic Research by Princeton University Press, 1958, in press), tables 33 and 84.

happens to changes in financial ratios and credit ratings for small and large firms during various phases of the business cycle, and about the relation of these changes to the use of credit by these firms. At present only some glimpses may be given into the materials that are to be examined more fully, and some of their more intriguing perplexities can be shown.

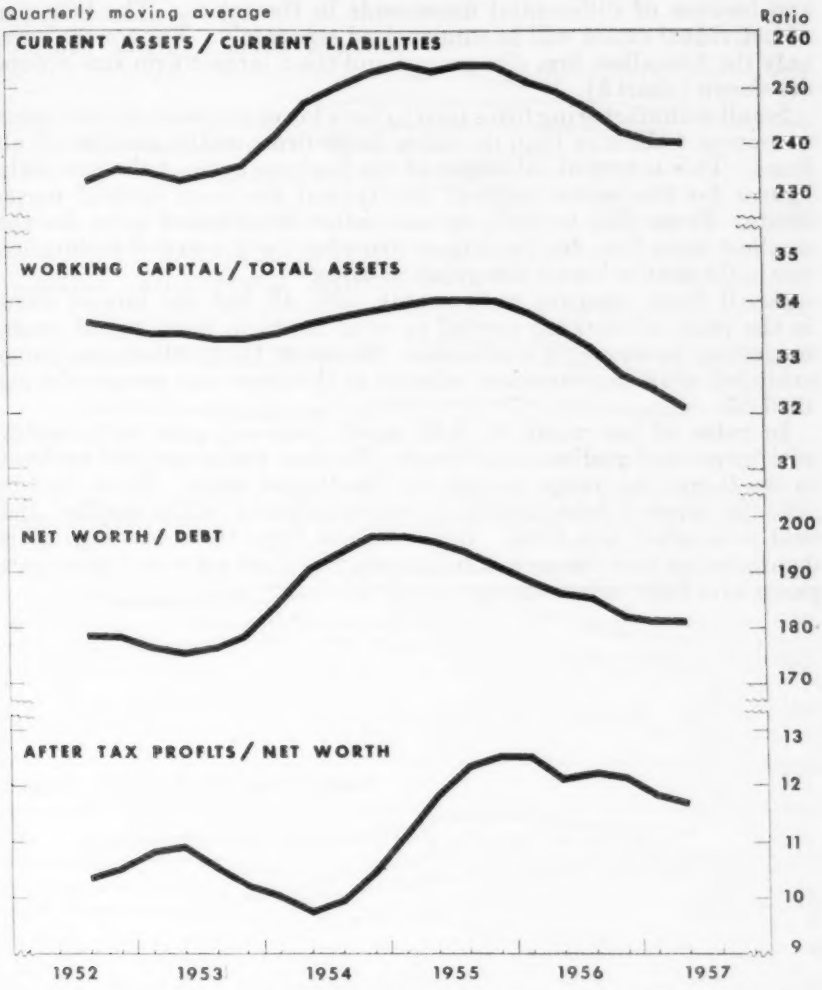
Some steps toward an answer to the question as to cyclical changes have been taken by analyzing the behavior of the financial ratios already used. Since the swing from business cycle troughs to business cycle peaks is almost universally a period when the indebtedness of business firms increases relatively faster than their asset items or owners' equity, it is obvious that ratios containing some measure of indebtedness in the denominator and some asset or equity item in the numerator will tend to fall from trough to peak and vice versa.[14] On the other hand, profit ratios will tend to rise from the trough to the peak. Under these measures of credit worthiness, firms may be getting less credit worthy during the period of business expansion as judged by indebtedness ratios, but may improve in standing as measured by profitability.

That something of this type does occur is apparent from the four panels of chart 2, showing a moving average of quarterly data for all United States manufacturing corporations as estimated by the Federal Trade Commission and Securities and Exchange Commission. The three liquidity and debt ratios rise sharply during the recession period of 1953–54 and continue to rise slowly until early in 1955. In 1956 they drop sharply. The profit ratio declines in the recession period, rises 1954–55, and declines slightly 1956–57.

[14] The same behavior will, of course, be true of the ratio of working capital to total assets because the numerator (current assets minus current liabilities) will decline as the denominator (total assets) increases.

Chart 2 3-51

BEHAVIOR OF SELECTED FINANCIAL RATIOS OF ALL MANUFACTURING CORPORATIONS



Source: Computations from Federal Trade Commission and Securities and Exchange Commission, Quarterly Financial Report, United States Manufacturing Corporations.

But what about the behavior of credit ratios of small firms compared with the average of all firms or, alternatively, small firms compared with large firms? Here the picture becomes complex both because of the varying levels of credit ratios for different sizes of firms and because of differential movements in the ratios. The behavior of individual ratios will be summarized separately. For convenience, only the 2 smallest firm size groups and the 2 largest firm size groups are shown (chart 3).

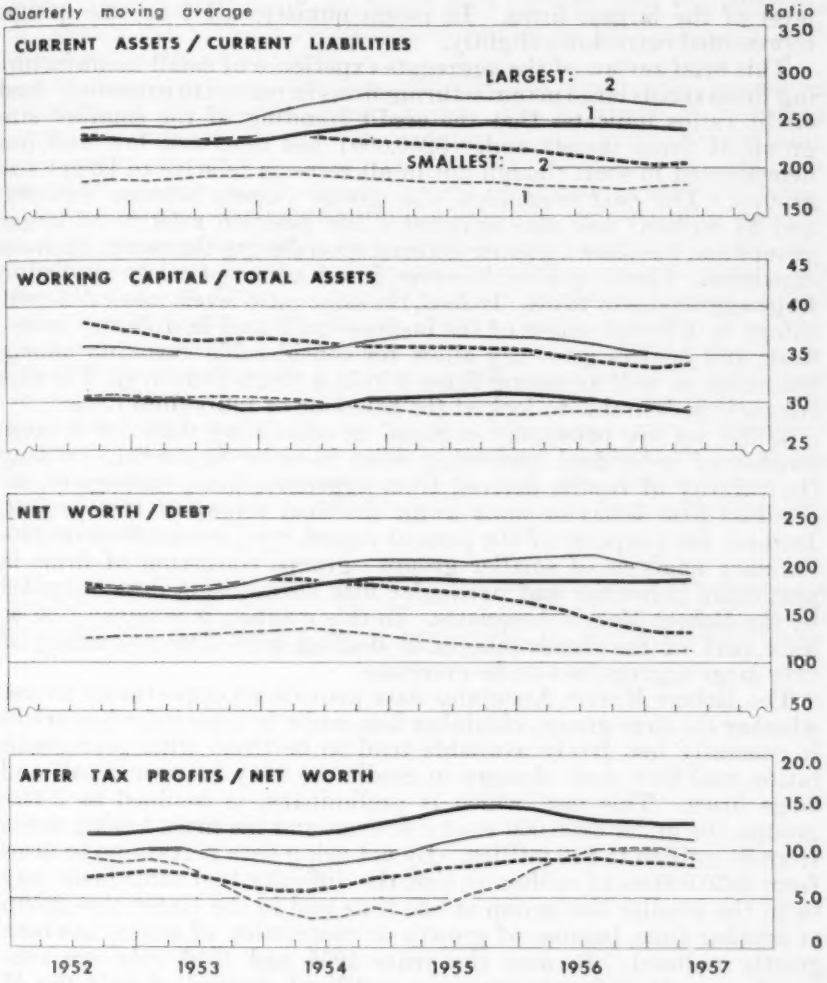
Small manufacturing firms tend to have lower ratios of current assets to current liabilities than do either large firms or the average of all firms. This is true at all stages of the business cycle if the quarterly figures for the period 1952–57 are typical for most cyclical movements. From 1954 to 1957, current ratios deteriorated more for the smallest firms than for the largest firms but the greatest deterioration was in the next to lowest size group of firms.

Small firms compare unfavorably with all but the largest firms in the ratio of working capital to total assets in most recent years, suggesting lower credit worthiness. However, the smallest size group exhibited some improvement relative to the other size groups during 1956–57.

In ratio of net worth to debt small firms compare unfavorably with large- and medium-sized firms. The best ratios are held by firms in the larger size range though not the largest firms. From 1954 to 1957 the greatest deterioration in ratios occurred in the smallest and next-to-smallest size firms. In the largest firms there was negligible deterioration over the period, indicating that their net worth grew pari passu with their indebtedness.

Chart 3 3-53

BEHAVIOR OF SELECTED FINANCIAL RATIOS OF TWO LARGEST AND TWO SMALLEST SIZE GROUPS OF MANUFACTURING CORPORATIONS



NOTE.—Two largest size groups are (1) $100 million and over, (2) $50 million–$99 million. Two smallest size groups are (1) under $250,000, and (2) $250,000–$999,000. Source: Computations from Federal Trade Commission and Securities and Exchange Commission, Quarterly Financial Report, United States Manufacturing Corporations.

Profit ratios of small firms show far greater extremes from period to period relative to those of large firms. In 1954 small firms' profits fell to a very much lower level than the profits of the largest firms and subsequently rose substantially more, though they did not reach the level of the largest firms. In recent quarters all four size groups represented move down slightly.

This brief review of the aggregate experience of small manufacturing firms versus large manufacturing firms in regard to commonly used credit ratios indicates that the credit standing of the smallest size group of firms (assets under $250,000) has remained low and has deteriorated in some though not in all respects relative to larger size groups. The next-to-smallest size group (assets between $250,000 and $1 million) has also occupied a low position relative to larger groups and has shown greater deterioration during the recent business expansion. Credit quality, however, is not a concept easily applied to large aggregates of firms. Indeed, the same ratio levels mean different things in different stages of the business cycle and in different industries, and lenders generally allow for considerable variation among industries as well as among firms within a single industry. For this reason it is desirable to look at the behavior of individual firms.

While we are presently engaged in examining data for a large number of individual borrowing firms in order to confirm or deny the validity of results derived from aggregate data, findings on individual firm behavior must await the final report of this project. Instead, for purposes of the present report, we have made some preliminary analyses of smaller groups—groups consisting of firms in particular industries and particular firm sizes—using data compiled by the Robert Morris Associates. In this manner, it is hoped that at least part of the disadvantages in dealing with data consisting of very large aggregates may be overcome.

The Robert Morris Associates data provide an opportunity to test whether the firm groups obtaining less credit in a period when credit is generally less freely available tend to be those with poor credit ratios, and how such changes in credit use vary between small and large firms. This test, which is preliminary, is confined to 2 size groups, the under $250,000 asset size firms and the firms having assets from $1 million to $10 million. By not using data pertaining to firms from $250,000 to $1 million in size, the difficulty that some firms may be in the smaller size group at one time and in the larger size group at another time, because of growth or contraction of assets, has been greatly reduced. Because the years 1955 and 1956 only are analyzed, some 51 industry groups are utilized, instead of only the 43 available continuously from 1952 through 1956. Hence, there are 51 matched pairs of composite ratios, 2 for each available industry, 1 for large firms ($1 million to $10 million), and 1 for small firms (under $250,000).[15]

[15] The method of analysis employed would be on firmer ground if the sample of firms were the same from year to year, but this is not the case, for the number of firms in each composite size and industry group changes from year to year as a result of dropouts and additions. If, as has been indicated, the Robert Morris Associates data may carry an inherent bias because of the credit selection process, the question arises as to how the conclusions may be affected. Presumably, the process of credit selection, if it is important in determining the firms in the Robert Morris Associates sample, would weed out of the sample many of the firms denied or not using credit. If such firms tended to be small firms, predominantly, as our findings suggest, the only small firms left in the Robert Morris Associ-

Since 1956 was a year of general prosperity, as well as a year characterized by a relatively restrictive monetary policy, it is of interest to determine how many small-firm industry groups increased their use of bank credit relative to their total assets, and how many large-firm industry groups increased their use. Finally, the incidence of greater use of bank credit can be related to the commonly used credit ratios discussed above.

For each size group, the 51 industries have been ranked according to value of the specified credit ratio. The incidence of increased credit use is shown by quintiles in table 12, each quintile containing 10 industry size groups except the fifth, which contains 11. By comparing the incidence of increased credit use between small- and large-firm groups and from credit ratio quintile to quintile, it is possible to observe how small firms have fared in obtaining bank credit, and how this has been related to their creditworthiness as indicated by the credit ratio. In table 12, small firms are shown to have expanded their use of bank credit during 1956 in fewer industry categories than did the larger firms. Moreover, while both small- and large-firm categories exhibited a greater incidence of increased credit use from the lowest to the highest quintiles of ranking by value of the particular credit ratios, the progression was more ragged for smaller firms. Finally, only in the topmost quintile of credit ratios in the case of the 3 of the 4 ratios shown in table 12 did small firms expand their bank-credit use as frequently or more frequently than did large firms.

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ates sample should be those with very good credit standing as indicated by financial ratios and, incidentally, those which were receiving abundant credit. Clearly, the data contained in this section of the report do not indicate this to be the case. Accordingly, if any bias results from the credit selection process in determining the firms in the Robert Morris Associates sample, it has not been sufficient to offset the results indicated.

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TABLE 12.—*Changes in the use of bank credit in relation to level of financial ratio, small and large firms*

[Percent]

Rank of financial ratio, quintile	Proportion of industry size group with increased bank credit, 1955–56	
	Small	Large
	Current assets to current liabilities, 1955	
1st (lowest)	40	70
2d	30	50
3d	20	40
4th	50	90
5th (highest)	91	91
	Working capital to total assets, 1955	
1st (lowest)	40	60
2d	40	60
3d	30	80
4th	50	80
5th (highest)	73	55
	Net worth to debt, 1955	
1st (lowest)	40	50
2d	20	70
3d	40	50
4th	50	80
5th (highest)	82	82
	Profits to net worth, 1955	
1st (lowest)	40	70
2d	40	80
3d	60	60
4th	50	70
5th (highest)	45	55

Source: Tabulations from Robert Morris Associates, annual statement studies.

In the above analysis it should be noted that the small-firm group in, say, the meatpacking industry is in the lowest quintile, while the large-size group in the same industry is in the highest quintile. Thus, there is no direct comparison of different size firms in the same industry that would take into account the fact that general trends in an industry itself may be an important determinant of creditworthiness. In the next test, an attempt has been made to remedy this defect.

Whereas in the previous test no attempt was made to compare large and small firms in the same industry as to the incidence of credit use and their financial ratios, in our next test each industry is classified into 1 of 2 groups. One group consists of industries in which bank credit to large business ($1 million to $10 million assets) increased as a proportion of total assets, but bank credit to small firms showed a decrease as a proportion of total assets from 1955 to 1956. This group, known as the decreasing-credit group, consisted of small and large firms in 18 industries. The other group is the control (all other industries) group, in which (1) both large and small firms increased their use of bank credit, or (2) both size groups decreased their use of bank credit, or (3) large firms decreased and small firms increased their use of bank credit. In all three of these cases, small firms did not suffer any serious discrimination in their use of bank credit relative to their larger counterparts in the same industry.

How did small firms that did not increase their use of bank credit (relative to assets) compare in terms of financial ratios with large firms in the same industries that did increase their bank credit during 1956? Table 13 attempts to answer this question. The relevant ratios for comparison are those for 1955, since these might conceivably influence the credit officer of the bank in deciding whether or not to extend credit to the firm during 1956. The 1955 financial ratios for small firms in the "decreasing credit" categories were lower than those of the corresponding large firms and differed more from their large counterparts than did the pairs in the "control" group of industries. This means that if the Robert Morris Associates data are representative, industries in which small firms obtained no increase in credit even though large firms in the same industry did receive increases were those in which small firms had low credit ratios, both in comparison to their counterpart large firms and in comparison to ratios in industries in which small firms fared relatively better creditwise.

TABLE 13.—*Comparison of financial ratios and other data for (1) industries showing decreasing use of bank credit for small firms but increasing use for large firms, and (2) control group of other industries, 1955–58*

Item	(1) Decreasing credit groups				(2) Control groups				Percentage change, 1955–58			
	1955		1956		1955		1956		(1) Decreasing credit groups		(2) Control groups	
	Small	Large	Small	Large	Small	Large	Small	Large	Small	Large	Small	Large
Percentage of total assets:												
Current assets	73.04	70.10	71.59	69.60	75.68	74.35	76.85	74.47	−2.0	−0.7	+1.5	+0.2
Due to banks (total)	9.58	8.71	7.12	10.67	8.55	11.64	9.77	11.78	−25.7	+22.5	+14.3	+1.2
Due to trade	15.46	10.55	14.60	11.67	15.38	12.01	15.94	12.10	−5.6	+10.6	+3.6	+.7
Total debt	39.91	37.00	38.00	39.13	37.31	39.54	38.97	39.87	−4.8	+5.8	+4.4	+.8
Percentage of sales: net profit	1.52	2.48	1.96	2.57	1.52	2.09	1.65	2.31	+28.9	+3.6	+8.6	+10.5
Ratios:												
Current	212.06	259.44	218.89	233.89	241.76	233.73	230.09	230.27	+3.2	−8.8	−4.8	−1.5
Working capital to total assets	38.29	41.21	38.56	38.12	43.61	41.67	42.94	41.05	+.7	−7.5	−1.5	−1.5
Worth to debt	155.33	191.17	167.09	166.33	176.33	161.12	161.91	160.15	+7.6	−13.0	−8.2	−.6
Profits to worth	7.45	8.25	9.65	9.17	7.30	7.61	7.73	7.72	+29.5	+11.2	+5.9	+1.4
Profits to total assets	4.52	5.27	5.98	5.58	4.52	4.71	4.69	4.60	+32.3	+5.9	+3.8	−2.3
Averages per firm (thousands of dollars):												
Net sales	448.8	7,084.5	477.7	7,234.5	468.6	7,283.7	493.6	7,218.0	+6.4	+2.1	+5.3	−.9
Total sales	137.7	2,979.6	146.5	2,979.4	139.7	2,934.0	144.6	3,012.1	+6.4	0	+3.5	+2.7

Source: Special tabulation of data from Robert Morris Associates, annual statement studies.

What about credit from sources other than banks? Clearly, the small firms in the "decreasing credit" group did not fill the gap in their declining use of bank credit from 1955 to 1956 by an increase in the use of trade credit. Instead, their use of trade credit declined from 1955 to 1956, suggesting the possibility that those who grant trade credit may also be influenced by low financial ratios, or by credit ratings that reflect poorer financial condition. By 1956, of course, the increased use of both bank and trade credit by the larger size firms in the "decreasing credit" industries had reduced their financial ratios relative to the smaller firms which reduced their use of credit.

It is interesting to note that profit ratios of the small firms in the "decreasing credit" group were very satisfactory in relation to small firms in the "control" group, as was their relative expansion of sales and assets. This suggests the possibility that small firms in the "decreasing credit" group are there because their ability to repay debt was greater than small firms in the "control" industries. It seems doubtful that this explanation is correct. Even if all of the increase from 1955 to 1956 in profits for the small firms in the decreasing credit group (from 4.52 to 5.98 percent of total assets, an increase of 1.46 percentage points) were plowed back into debt repayment it would hardly have accounted for the 3.32 percentage-point reduction between the 2 years in bank and trade credit combined, computed as a percentage of total assets. Nor would it have explained why, if these firms were so profitable, they did not increase their borrowings in order to increase their returns further. In fact, reduced interest costs coming from smaller use of credit may have had something to do with the profit increase from 1955 to 1956.

We have seen from our two tests that at least for these data (1) small firms generally had a lower incidence of increased use of bank credit from 1955 to 1956 than did large firms, and (2) this tendency was at least partially associated with poorer financial ratios of the small firms, although the evidence here is by no means completely clearcut. In summing up, therefore, it is possible to say that, although cause and effect can scarcely be inferred, there is a presumption that the less satisfactory financial condition of small firms was associated with the reduced use or reduced availability of bank credit by these firms for the 1955 to 1956 period. Further analysis of individual firm data is planned in order to test this tentative conclusion.

7. LOSS RATES AND INTEREST RATES

Though our evidence has been sketchy, has come from many different sources, and is not entirely consistent, it appears that smaller firms on the average are somewhat poorer credit risks than larger firms. These differences in risk, when large numbers of firms are taken together, seem moderately predictable on the basis of the common indicators of creditworthiness. Moreover, during the recent business expansion and period of credit tightness, the creditworthiness of small firms seems to have deteriorated somewhat, or at least not improved markedly relative to large firms. Finally, some evidence has suggested that the lower level of creditworthiness has had a restricting influence on small firms' use of bank credit.

Here, however, we come back to the problem posed earlier. Is not the problem a matter of balancing risks against returns? By charging higher interest rates to small borrowers than to large borrowers, cannot the lender cancel out any increased loan risks to smaller firms? Or, to put it another way, as monetary conditions tighten are not interest rates raised sufficiently to cover any increased risks that might be anticipated in lending to small business? While this aspect of the problem is a crucial one, we have only some preliminary findings to report at this time. First we shall review some historical evidence from a related field—that of the corporate bond market. Then we shall consider some results from a special study of commercial bank lending to small business.

A. Corporate bond yields and loss rates

As pointed out earlier, experience in the corporate bond market is not directly relevant to the financing of what are commonly regarded as small businesses, since bonds are seldom issued by firms with less than several millions in assets. Nevertheless, a brief review of certain aspects of this experience is worthwhile for several reasons. One is that this field is the only one in which a really comprehensive record of financial experience in relation to size of borrowing firm has ever been compiled. Another is that this record covers a long period, during which business and financial conditions varied widely, so that one can get some view of a range of experience rather than 1 or 2 particular situations. A third is that the measurement of risks and returns, which is of primary interest for this report, is more precise in this area than in most others. The problem of loan servicing costs and their influence on interest rates, for example, is largely avoided. But the principal reason is that the results the bond study discloses as to the experience of firms in different size classes, even in a market in which all the firms are relatively large, are instructive, if carefully interpreted.

TABLE 14.—*Life span yields and loss rates on industrial bond regular offerings, by asset size of obligor at offering and by period of offering and extinguishment, 1900–43* [1]

Offered	Extinguished	Assets (millions of dollars)			
		Under 5	5 to 99	100 to 199	200 and over
		Promised yield (percent)			
1. 1900–1919	1900–1931	6.6	6.1	6.1	5.8
2. 1920–1931	1920–1931	6.6	6.9	7.1	6.8
3. 1900–1919	1932–1943		5.4	5.1	5.2
4. 1920–1931	1932–1943	6.7	6.2	5.6	5.3
5. 1932–1943	1932–1943	5.7	4.6	4.3	3.6
All offerings [2]		6.4	6.0	5.4	4.8
		Loss rate (percent)			
1. 1900–1919	1900–1931	[3] −0.8	0.2	[3] −5.8	[3] −0.9
2. 1920–1931	1920–1931	.2	[3] −.2	0	[3] −1.4
3. 1900–1919	1932–1943		.1	−.2	[3] −.1
4. 1920–1931	1932–1943	4.6	2.7	.9	[3] −.3
5. 1932–1943	1932–1943	[3] −1.0	[3] −8.5	[3] −1.2	[3] −1.1
All offerings [2]		2.3	.5	[3] −.8	[3] −.9
		Realized yield (percent)			
1. 1900–1919	1900–1931	7.4	5.9	11.9	6.7
2. 1920–1931	1920–1931	6.4	7.1	7.1	8.2
3. 1900–1919	1932–1943		5.3	5.3	5.3
4. 1920–1931	1932–1943	2.1	3.5	4.7	5.6
5. 1932–1943	1932–1943	6.7	8.1	5.5	4.7
All offerings [2]		4.1	5.5	6.2	5.7
Par amount of offerings (millions of dollars)		789	7,525	3,377	5,110

[1] Yields and loss rates are weighted averages. Excludes issues offered by contract modification during corporate reorganizations, etc., and issues on which information on asset size of obligor was lacking. The data cover all issues of $5,000,000 and over for which information was available and an adjusted 10 percent sample of smaller issues.

[2] Including bonds outstanding before 1900 as well as those outstanding at the end of 1943.

[3] Capital gain (call premiums exceed losses).

Source: W. Braddock Hickman, Statistical Measures of Corporate Bond Characteristics and Experience (unpublished manuscript), table 206 and Hickman, op. cit. (in press), table 3.

As we have shown in section 2, W. Braddock Hickman, in his study of Corporate Bond Quality and Investor Experience, finds that the default rates on industrial bond issues, 1900–1943, varied inversely with the size of the issuing firm, being highest for the smallest firms, which, here, meant up to $5 million in assets. On the other hand, the interest rates these smaller firms had to pay on their bonds (i. e., the promised yields—the yields that investors would have realized if the bonds were paid in full at maturity date without prior delay) were also higher. Taking the record for 1900–1943 as a whole (summary section of table 14), the higher yields did not fully compensate for the higher losses experience. The average realized yield on the bonds of companies with assets of less than $5 million was 4.1 percent; the average realized yield on bonds of corporations with assets of $5 million to $99 million was 5.5 percent. For corporations of still larger size, the realized yields were 6.2 percent (assets $100 million to $199

million) and 5.7 percent (assets $200 million and over). In the issues by the large companies, any losses due to default were more than offset, on the average, by gains due to prepayment.[16] Although the promised yields on the small-company issues were, therefore, substantially higher than for the larger companies, the realized yields were appreciably lower.

In certain respects, however, this consolidated record of four decades of industrial corporate-bond history is misleading. The results are heavily weighted by the catastrophic events of the great depression. If we look at experience both before the depression struck and afterward, the picture is rather different.

In the body of table 14 we distinguish among industrial bonds offered and extinguished before the depression (groups 1 and 2), those offered before but extinguished during or after the depression (groups 3 and 4), and those offered and extinguished during or after the depression (group 5).[17] The pattern of promised yields by size of borrower is fairly similar in all cases but one. Smaller firms paid higher rates, except in the case of bonds issued and extinguished in the twenties (group 2). Here it appears that the bonds of large obligors that were issued at high yields were prepaid (compare the promised yields of group 2 with those of group 4, which were offered in the same period but extinguished in the thirties)—an option that was either not available to or was not exercised by the small obligors. For this reason, together with the slightly higher loss rates on small-obligor bonds than on large-obligor bonds in group 2, the realized yields on the small-obligor bonds in this group were somewhat lower than those in the large-obligor bonds. However, the really high loss rates on small-obligor bonds were experienced only on those bonds that were issued in the twenties and extinguished in the thirties and early forties, i. e., those that were subjected most heavily both to the quality-deteriorating influences of the pre-1929 boom and to the subsequent effects of the depression (group 4). Here the loss rates on issues of small firms were strikingly higher than on the issues of large firms. The result is that, by and large, it is only in the case of these bonds—issued in the twenties and extinguished in the thirties and early forties—that realized yields were markedly lower on the issues of smaller firms. The differential yield paid by small firms in the twenties was by no means sufficient to offset their differential loss rate in the thirties. But it was just about adequate for bonds extinguished before the depression (groups 1 and 2), and far more than adequate for bonds issued after the depression (group 5).

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[16] A question may be raised as to whether call premiums should be included in the calculation of realized yields, since they are realized only when the state of the market and the financial situation of the obligor is such as to make prepayment worthwhile. However, the possibility of prepayment is obviously taken into account by the investor and is presumably reflected, to the extent possible, in the yields at time of issue, just as the possibility of default is reflected. The yields as calculated, including call premiums, measure the rate of return an investor would have realized in the aggregate had he bought the bonds at offering and held them until they were extinguished. However, it must be admitted that the call-premium feature does not have a direct counterpart in the case of short-term business loans unless they have prepayment penalties.

[17] Omitted are a few bonds outstanding before 1900 and extinguished before 1943, as well as those still outstanding at the end of 1943.

Table 15 supplements this evidence in a different way. Here, Hickman's materials relate not to the yields and loss rates on bond offerings in a given period, but to all bonds outstanding at the beginning of each 4-year period. Hence, the promised yields represent the markets' appraisal of the bonds of obligors of different asset size, and the realized yields show how the investor would fare had he invested in the bonds at the beginning of each period and liquidated his holdings at the end of the period, in the meantime experiencing such defaults or prepayments or change in market price of the bond as actually occurred.

Again, the promised yields are typically higher for the smaller firms in every period. The loss rates, also, are typically higher—that is, in all but three of the periods covered (1908–11, 1916–19, and 1940–43). The realized yields are less regular in pattern, in some periods (notably 1908–11, 1916–19, 1920–23, 1924–27, 1936–39, and 1940–43) showing higher yields for the smaller size firms, and in some periods (notably 1900–1903, 1904–07, 1912–15, and 1928–31) showing lower realized yields for the smaller firms. In short, the aggregate results, from the point of view of an investor, during these 4-year periods were often more satisfactory but, occasionally, less satisfactory in the case of bonds of small than of large corporations. It is interesting to observe that the differentials in promised yields against the smaller corporations became especially large in 1908–11 and in every period since 1932, after the heavy losses on the issues of small firms in the immediately preceding periods (1904–07 and 1928–31). As it turned out, these differentials were by no means required to offset differential losses in the subsequent periods (except in 1932–35). Hence, realized yields on outstanding issues of small obligors substantially exceeded those on the issues of large obligors.

TABLE 15.—*Yields and loss rates on industrial bonds over 4-year periods of investment, by asset size of obligor*

PROMISED YIELD

[Percent]

Period	Assets of obligor (millions of dollars)			
	Under 5	5 to 99	100 to 199	200 and over
1900–1903	[1] 4.6	4.8	[1] 4.7	[1] 4.7
1904–7		6.4	[1] 5.1	5.8
1908–11		7.6	[1] 5.7	5.1
1912–15	[1] 6.7	6.1	5.2	4.5
1916–19		6.2	4.6	4.6
1920–23		8.2	6.6	5.5
1924–27		7.4	6.4	5.7
1928–31	[1] 6.6	6.6	5.6	5.1
1932–35	19.0	16.9	17.2	8.6
1936–39	7.6	6.3	4.8	4.1
1940–43	9.2	7.6	3.6	3.1
1944	6.2	4.6	3.1	2.8

LOSS RATE

1900–1903	[1] 1.7	0.1	[1] 0.6	[1] [2]—2.7
1904–7		1.8	.6	[1] [2]—3.0
1908–11		[2]—3.2	[2]—.6	[1] [2]—2.4
1912–15	[1] 1.1	2.4	[2]—.6	0
1916–19		1.7	2.2	2.6
1920–23		[2]—.6	[2]—.9	[2]—1.4
1924–27		0	[2]—.6	[2]—1.6
1928–31	[1] 6.0	10.9	6.2	2.1
1932–35	8.3	[2]—1.6	[2]—1.8	[2]—4.8
1936–39	1.4	2.4	1.7	.9
1940–43	[2]—6.2	[2]—3.1	[2]—.3	.5

REALIZED YIELD

1900–1903	[1] 2.9	4.7	[1] 4.1	[1] 7.4
1904–7		4.6	[1] 4.5	8.8
1908–11		10.8	[1] 6.3	7.5
1912–15	[1] 5.6	3.7	5.8	4.5
1916–19		4.5	2.4	2.0
1920–23		8.8	7.5	6.9
1924–27		7.4	7.0	7.3
1928–31	[1] .6	—4.3	—.6	3.0
1932–35	10.7	18.5	19.0	13.4
1936–39	6.2	3.9	3.1	3.2
1940–43	15.4	10.7	3.9	2.6

[1] Based on less than 5 issues.
[2] Capital gain.

Source: Hickman, op. cit. (in press), table 112 and underlying tabulations.

Hickman comes to the conclusion that issues of large obligors behave most nearly like high-grade issues by whatever quality standard utilized and small-firm issues behave most nearly like the lower grade issues. "The market generally, along with the rating agencies and the legal lists, has shown a preference for the power and financial strength of large corporations and for the liquidity of large issues." [18] He suggests two institutional reasons why returns do not appear to have equalized between large and small obligor issues after allowance for losses and call premiums. First, the market for corporate bonds may be dominated by institutional investors inhibited by either supervisory agency regulations concerning defaulted bonds or by fear of

[18] W. Braddock Hickman, op. cit. (in press), p. 20.

public misunderstanding should any great number of defaults appear in their portfolios. These considerations would prevent institutions from any great acceptance of risks involved in small obligor offerings even though they could easily minimize risks through adequate diversification among offerings. Second, if the market were dominated by small investors who could not diversify, they would naturally favor issues of large obligors for their preferred quality status, and yields on issues of smaller firms would tend to be higher. A third point mentioned by Hickman as a possible explanation of the higher realized yields that have often obtained on poorer quality and smaller firm issues is that, in addition to yields sufficient to offset expected losses, the investor may require an additional reward for bearing a higher risk.

If lenders to small business are, in fact, either unable to diversify adequately or recall too vividly the relative effects on small business that the great depression had, any reasonable compensation for making loans to small and high risk firms may be insufficient to induce the wholesale granting of such loans. In this event rationing in the availability of credit to small firms rather than changes in the relative price of loans to small and large borrowers, such as appeared in the corporate bond market, may be the consequence. That some, at least, of the results of the bond study have their counterpart in the commercial loan market is suggested by the analysis to which we now turn.

B. Commercial bank loss rates and earnings

Evidence on risks and gross returns from lending to small business is provided by our analysis of gross losses and gross interest earnings of banks that lend in varying degree to small business. The data used for the analysis are for 138 banks participating in the 1955 loan survey, from one of the Federal Reserve Districts.[19] A comparison of loan portfolio and operating characteristics of these sample banks with all member banks (excluding those with over $500 million of deposits) indicated sufficient similarities so that findings from the sample banks should not be discounted as particular to those banks. This comparison showed that the gross losses and interest earnings of the sample banks, arranged by size of bank, were similar to those of all member banks, and that the relative importance of loans to businesses of different size and to other broad categories of borrowers in the two groups of banks corresponded closely. It would be highly desirable, however, to expand the sample of banks, analyze a less prosperous year than 1955, and test the results in other ways. It is planned to do this as the study proceeds during 1958.

Risk and gross returns are measured in terms of gross losses and gross interest earnings on all outstanding loans (including farm, personal, securities, mortgage, and other loans not covered by the term "business loans") of individual banks or groups of banks. Losses are measured without adjusting for recoveries because the unadjusted

[19] The methods and rationale underlying the analysis are given in appendix A. It should be understood that this analysis deals with differences in gross losses and gross interest earnings on loans, and does not take into account differences in the overall profitability of doing business with small and large enterprises. Thus, lower interest charges on loans to large business may reflect, in part, other aspects of servicing larger businesses, such as size of deposit balances held and other transactions, which may be more profitable than similar servicing of small business.

loss figure appears to be a preferable measure of current risk on outstanding loans. Risks, or gross loss experience as risk is measured by these data, and gross interest returns from lending to small business are inferred by comparing differences in such experience between banks which lend to small business in varying degree. Small businesses are taken to be those of asset size under $250,000. This seemed to be the best single definition for purposes of this analysis, although it includes businesses which might be considered large in some industries, and excludes businesses which might be considered small in some others.

The pattern of bank lending to small business was developed from the estimated percentage that loans to small businesses constituted of total loans of each bank on the survey date. Condition report data for other types of loans were adjusted, where necessary, to make them comparable with survey totals of business loans. Loans to small businesses and loans to other borrowers are measured in relation to total loans (i e., business and other loans) rather than to business loans only, because gross losses and gross interest earnings are reported only for total loans in the earnings and divided reports to the supervisory agencies. Variations in the ratio of small business loans to total loans provide a way of measuring the effects of small business loans on the bank's total loss and earnings experience.

(*a*) *Simple correlations between gross loss and interest earning rates and loans to small business.*—Measuring the data in this way, the following rank correlations were obtained between the degree of lending to small business and gross losses and gross interest earnings per hundred dollars of loans:

	Coefficient of rank correlation
(1) Percentage of outstanding loans to small business and gross loss rates	+0.22
(2) Percentage of outstanding loans to small business and gross interest earning rates	+ .45

While these correlations are very low, they do suggest that a relationship, which we find more pronounced after taking bank size and portfolio composition into account, exists between lending to small business and loss experience. Both loss rates and earnings rates tend to be higher the larger the proportion of small business loans, in the bank's loan portfolio. Further, it appears that interest earnings are more closely related to the volume of lending to small business than are experienced losses. This may reflect greater operating expenses incurred in lending to small business which affects the interest rate charged, or erratic factors affecting the loss rate in a given year, or these in combination with other factors.

TABLE 16.—*Loss rates per $100 of total loans outstanding of sample banks, by size of bank and by estimated percentage of loans to small business*

Deposits (millions of dollars)	Percentage of loans to small business						Summary average of columns		
	Low: 0 to 12.49		Medium: 12.50 to 24.99		High: 25.00 and over		Number of banks	Average loss rate	
	Number of banks	Average loss rate	Number of banks	Average loss rate	Number of banks	Average loss rate		Equal weight per column	Equal weight per bank
Under 5	8	0.069	19	0.191	10	0.330	37	0.197	0.202
5 to 9	3	.064	8	.158	8	.159	19	.127	.143
10 to 19	3	.099	12	.173	8	.236	23	.169	.185
20 to 49	3	.158	13	.051	9	.154	25	.121	.101
50 to 99	5	.082	8	.062	3	.246	16	.130	.103
100 to 499	14	.082	4	.094			18	[1] (.088)	.085
Under 100 (average with equal weight per size class)	22	.094	60	.127	38	.225	120		.155
Under 500 (average with equal weight per bank)	36	.085	64	.133	38	.226	138		.146

[1] Average of first 2 columns only.

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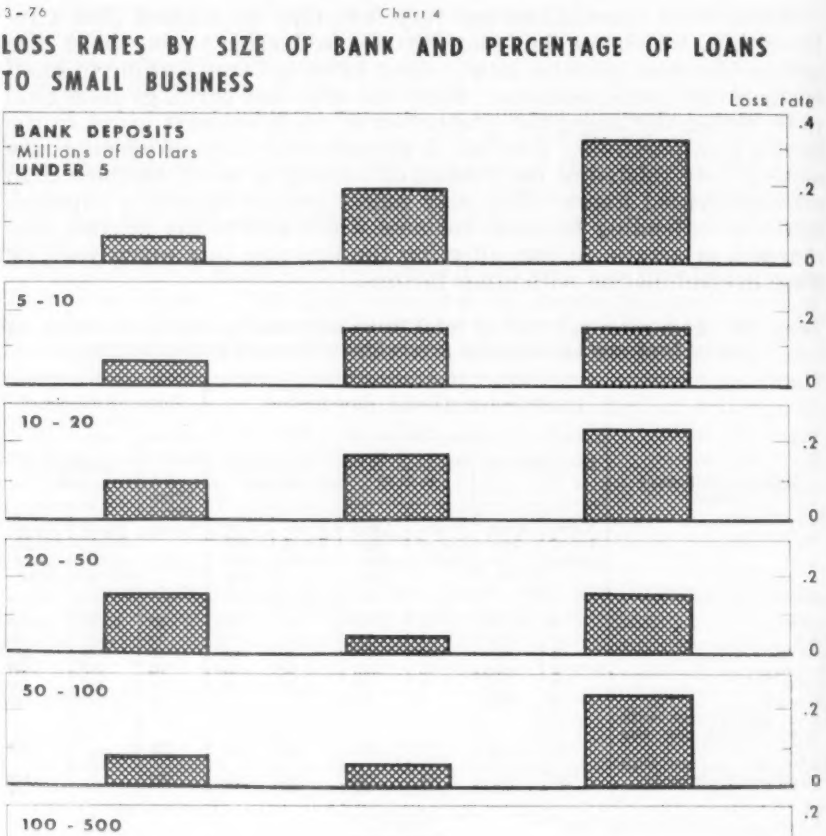
LOSS RATES BY SIZE OF BANK AND PERCENTAGE OF LOANS TO SMALL BUSINESS



NOTE.—Loss rates are shown per $100 of loans outstanding.

(*b*) *Experience in lending to small business, separately for small and large banks.*—The relationship between lending to small business and gross losses is somewhat more striking when size of bank is taken into account (table 16 and chart 4). Banks are grouped by deposit size and by three classifications of the estimated percentage that their small-business loans are of their total loans. The basis used to group banks as "low" (percentage of loans to small business, 0–12.49), "medium" (percentage of loans to small business, 12.50–24.99), and "high" (percentage of loans to small business, over 25) was to include

in the "medium" group roughly half of the banks, leaving almost a fourth of the banks in the "high" and "low" group, respectively.[20] The terms "low," "medium," and "high," are not intended to suggest standards of any kind, but are simply a convenient way to characterize loan portfolios in terms of the relative importance of loans to small business. In particular it must be stressed that banks with "low" percentages of total loans to small business include large banks whose dollar volume of loans to small business exceed by many times that of many small banks with "high" percentages of total loans to small business.

As shown in these exhibits, within each size group of banks those banks that lend to small business in greater degree have higher loss rates (with two exceptions). The first set of averages at the foot of the table summarizes this tendency. The average loss rate for each of the five groups of banks below $100 million in deposit size is given equal weight. In reading these summary averages horizontally, bank size is essentially held constant over the three small-business loan classifications. Standardized in this way for bank size, it appears that in this sample banks which were estimated to lend to small busines to the greatest degree experienced losses some 10 cents (per $100) more than banks which lend to small busines in a moderate degree, and 13 cents (per $100) more than banks which lend to small business to a low degree. Relatively, the loss rates in the top group are almost 2½ times as large as those in the bottom group.

The summary average loss rates ($100 of total loans) for each size classification of banks are shown at the right of the table, computed in 2 distinctly different ways. In the first set of summary averages the loss rate of bank groups in each of the three columns (low, medium, high) are given equal weight, irrespective of the number of banks in the particular column. In the second set of summary averages the loss rate of each bank is given equal weight. A simplified way to interpret the first set of averages is to visualize each loss rate in the body of the table as though it represents 1 bank; then the first set of summary averages at the right is a simple average of 3 banks in each size class of bank (except the largest). Thus the number of banks lending to small business in different degree is equalized for each bank size class. As a result, the difference in average loss rates between banks of deposit size $50–$100 million and under $5 million are reduced from 0.099 to 0.067 (per $100 of total loans) or by about one-third of their difference before this adjustment. In general a comparison of the two types of summary averages indicates that average loss rates of all size groups of banks tend to be equalized in this way. This indicates that the higher loss rates of small banks are partly accounted for by the higher percentages of small-business loans in the loan portfolios of small banks.

The remaining differences may also be explainable by variations in other loan portfolio components, rather than by bank size itself. This possibility is further suggested by the result that the average loss rate (0.085) over all sizes of banks lending least to small business, shown

[20] This follows a principle of classification suggested in connection with related considerations in an article by Wendy M. Gibson and Geoffrey H. Jowett, " 'Three-Group' Regression Analysis." Applied Statistics, June 1957, p. 119. The actual ranges of loans to small business for these groups are: low, 2.58–12.44 percent; medium, 12.64–24.81 percent; high, 25.05–60.55 percent.

in the second set of summary averages at the foot of the first column of the table, is the same as the average loss rate (0.085) for the 18 largest banks.

These findings provide partial, although not complete justification for bypassing size of bank in the next stage of the analysis. In this, banks are grouped by loan portfolio composition, and deposit size of bank is not held constant. One reason for this method of analysis is that differences in interest earnings on all loans cannot meaningfully be examined by the means used in table 16. This is because variations in components of the loan portfolio other than loans to small business, which entail different degrees of risk and expense, are not held constant between the banks which lend to small business in different degree. That other types of loans did, in fact, vary over the small business classifications used in table 16, is borne out by examination of loan portfolio composition (other than loans to small business) for the several bank groups in the table.

(*c*) *Gross losses and interested earnings in lending to small business, taking loan portfolio composition into account.*—In order to hold loan portfolio components substantially constant, while the percentage of loans to small business varies, banks were reclassified (ignoring deposit size of bank) according to the degree to which they lend to farmers, consumers, and residential homeowners, and to small and large businesses. It should be noted that in some cases loans other than so-called business loans may in fact be used for business purposes. There is no way to take this into account in the present analysis, and it introduces an additional source of possible error. However, since the main concern of the analysis is with differences between banks in portfolio composition, this factor need not distort the analysis unless it is related in certain ways to the principle of classification used here. One example would be if most of the loans to consumers by banks which appear to lend extensively to large business and less extensively to small business are in fact used for the purposes of financing small business, whereas loans to consumers by banks lending heavily to small business are not used in financing small business. While such a difference in the behavior of borrowers from the different bank groups seems unlikely, it is nevertheless a possibility.

The basis for classifying the percentage of loans to small-business was indicated above. Similar principles were applied to classify banks 3 ways as lenders to large business (low: under 10 percent; medium: 10 to 25 percent; high: 25 percent and over), and 2 ways each lending to farmers (low: under 15 percent; high: over 15 percent), and to consumers and on noninsured residential mortgages combined (low: under 40 percent; high: over 40 percent).[21] By this method of maximum of 36 subgroups of banks could be generated

[21] Ranges for these groups are:

	Low	Medium	High
	Percent	*Percent*	*Percent*
Loans to large business	0 - 9.44	10.13-23.87	25.64-61.69
Loans to farmers	0 -13.29	----------	17.12-64.38
Loans to consumers and on real estate	4.07-39.81	----------	40.24-86.28

and a maximum of 12 groups of 3 each yielding estimates of differences in loss experience and gross interest experience as lending to small-business increases, with other loan components held substantially constant.

The results of this classification of banks are shown in table 17. To illustrate its interpretation, consider cell group (*e*) in the middle of the table. Twenty-seven banks fell within this group, lending as compared with all other banks, in a low degree to farmers, medium degree to large businesses, and a high degree to consumers and on noninsured residential and related mortgages. Of the 27 banks, 6 loaned to small businesses to a low degree (0–12.49 percent of total loans outstanding), 13 to a medium degree (12.5–24.49 percent), and 8 to a high degree (over 25 percent). The simple unweighted average loss rate shown in the body of the table for each of the 3 groups increases somewhat as lending to small-business increases. The gross interest earning rate tends to increase, although not as consistently as the loss rate.

TABLE 17.—*Average gross loss and interest earning rates (unweighted) of sample banks classified by estimated loan composition on Oct. 5, 1955*

Business loans		Consumer and noninsured residential real estate loans					
		Low (0 to 40 percent)			High (over 40 percent)		
To large business	To small business	Number of banks	Average loss rate (unweighted)	Average interest rate (unweighted)	Number of banks	Average loss rate (unweighted)	Average interest rate (unweighted)
			Farm loans low (0 to 15 percent)				
			(a)			(d)	
Low (0 to 10 percent)	Low				2	0.032	6.075
	Medium				13	0.184	6.307
	High	2	0.362	5.046	2	0.034	6.200
			(b)			(e)	
Medium (10 to 25 percent)	Low				6	0.106	6.009
	Medium	1	0.028	4.795	13	0.125	5.986
	High	7	0.129	5.538	8	0.136	6.086
			(c)			(f)	
High (over 25 percent)	Low	14	0.093	4.401	5	0.080	4.607
	Medium	13	0.079	4.741	5	0.035	5.300
	High	7	0.146	5.577			
			Farm loans high (over 15 percent)				
			(g)			(j)	
(0 to 10 percent)	Low	3	0.125	4.998	6	0.050	7.719
	Medium	14	0.206	6.312	3	0.043	6.333
	High	6	0.530	6.896	4	0.288	6.104
			(h)			(k)	
Medium (10 to 25 percent)	Low						
	Medium	2	0.012	5.210			
	High	2	0.218	5.502			
			(i)			(l)	
High (over 25 percent)	Low						
	Medium						
	High						

SUMMARY AVERAGES

Loans to small business (percent)	Simple average of cells (c), (d), (e), (g), (j)			Simple average of cells (b), (c), (d), (e), (g), (h), (j)		
	Number of banks	Average loss rate	Average interest rate	Number of banks	Average loss rate	Average interest rate
		Percent	*Percent*		*Percent*	*Percent*
Low (0 to 12.49)	31	0.081	5.840			
Medium (12.50 to 24.99)	56	.127	5.940	59	0.097	5.672
High (25.00 and over)	27	.226	6.173	36	.212	5.986

NOTE.—For description of loans in each classification see appendix A.

Five cells (c, d, e, g, j) contain observations for each of the three categories of small-business lending, and two others (b, h) for the subgroups which include banks lending to small business to a moderate and to a high degree. It is on these that the analysis centers.

The first point of interest is in the general ordering of loss and interest earning rates on total loans. Although there are exceptions, the general pattern shown is that, holding other components of the loan portfolio substantially constant:

(1) Loss experience increases as lending to small borrowers increases.

(2) Interest earning rates on loans increase as the degree of lending to small borrowers increases.[22]

However, it must be recognized that the subcells contain very small samples of banks and that the variation among banks in gross loss experience within each subcell group is large. The standard deviation was computed for each group of five or more observations and found to be larger than the average for almost every group. Thus, the results derived from this table, although consistent with the analysis in which size of bank alone is taken into account, should be regarded as suggestive and tentative until they are checked against further analysis of similar data. A still better check, of course, would be provided by an analysis based on direct experience on loans to small business, rather than one that, as in this case, infers the results from differences in bank experience on loans generally.

The broad averages are summarized at the foot of table 17. These indicate results for loss rates substantially the same as those shown previously in table 16, but now also permit inferences about gross interest earnings of banks which lend to small business to a varying degree. Banks lending in the highest degree to small businesses in this sample are found to have experienced losses some 10 or 11 cents greater and gross interest earnings some 23 to 31 cents more per $100 of outstanding loans than those banks lending to small business to a moderate degree; and losses some 15 cents and gross interest earnings roughly 33 cents more per $100 of outstanding loans than banks

[22] The ordering is, however, much more consistent between the medium and high classes than over the three groups, low, medium, and high. Thus for loss rates the 3-way ordering is such that it would occur by chance 1 out of 10 times in a random grouping of these numbers, while in the movement from medium to high for 7 cells, the loss rate is higher in the expected direction 6 out of 7 times for which the probability of occurring by chance alone is only about 1 out of 20 times.

The corresponding ordering of interest earning rates is not as consistent, having a probability of occurring by chance about 1 out of 3 times for the 3-way classification and about 1 out of 6 in the medium-high groups for 7 cells.

lending to small business to the least degree. In general, the tendencies suggested by these data are that banks undertake greater risk in lending to small businesses (as measured by experienced losses on the average in the period studied), and appear to be somewhat more than compensated for it, at least before additional costs in lending to small business are taken into account.

Summary data from the bank groups of table 17 are shown in table 18. These data were averaged for banks grouped in the 5 cells 3 ways ("low," "medium," and "high" lending to small business), and the 7 cells 2 ways ("medium" and "high" lending to small business).

TABLE 18.—*Summary for bank groups in table 17—Average gross loss and interest earning rates, portfolio composition, business loan size, and deposit size*

Item	Simple averages of cells (c), (d), (e), (g), (j)				Simple averages of cells (b), (c), (d), (e), (g), (h), (j)		
	Total classified banks	Proportion of loans to small business			Total classified banks	Proportion of loans to small business	
		Low	Medium	High		Medium	High
Number of banks	114	31	56	27	95	59	36
Rates per $100 of total loans outstanding:							
Gross loss	0.153	0.081	0.127	0.226	0.170	0.097	0.212
Gross interest earning	5.843	5.840	5.940	6.173	5.894	5.672	5.986
Excess of gross interest earning over gross loss	5.690	5.759	5.813	5.947	5.724	5.575	5.774
Loan composition: Percentage of total loans to—							
Small business		8.55	17.85	29.94		17.02	31.78
Large business		15.03	13.13	12.81		14.29	14.38
Farmers		15.11	14.45	12.38		14.98	14.29
Consumers and on real estate		50.45	42.72	41.60		39.39	35.94
Average business loan (dollars)		16,831	11,539	8,709		11,608	9,079
Average bank deposits (thousands of dollars)		46,161	28,697	15,528		32,566	18,217

For convenience, the summary gross loss and interest earnings shown at the foot of table 17 are repeated.[23] Apart from these data, the table shows the net interest earnings of these banks after gross loss rates are subtracted. It can be seen that the interest earnings (net of losses) of banks lending to small business in greatest degree are 13 to 20 cents (per $100 of loans outstanding) greater than for banks lending to small business in moderate degree, and some 18 to 19 cents greater than for banks lending to small business in the least degree. In short, the differences in gross interest earnings which presumably are associated with differences in lending to small business by these banks are reduced some 40 percent by taking into account corresponding differences in loss experience.

While differences in interest earnings remain, their significance should not be exaggerated. Considered in relation to average levels of interest earnings they are quite small. After adjusting for losses, one-tenth to two-tenths of 1 percent differences in interest earnings remain in comparison with average interest earning levels for these

[23] It may be noted that, as between the 5- and 7-cell averages, the addition of only 3 banks in the medium class has a rather large effect on the loss and interest rate averages. The method of taking simple averages of cells, which is necessary in order to equalize loan portfolio categories, in this instance probably overweights the importance of the three banks.

banks as a group of 5.8 to 5.9 percent and a range for individual banks from under 4 to over 8 percent.

The next set of figures in table 18 indicates the summary average loan composition for these banks. It is to be noted that the loan components other than to small business could not be kept completely constant, although they are substantially equalized, especially for the medium-high comparison. To the extent they are not constant, the observed differences in loss and interest experience between groups of banks may reflect the reduced importance of other loan components as well as the increased lending to small business.

A point still unanswered is whether all or part of the observed differences in interest earnings net of losses reflect charges for other aspects of risk, such as possible differential loss experience during business declines, differences in industry composition among the small-business borrowers, and higher operating cots per dollar of loan in lending to small business. Or do the remaining differences reflect the fact that banks obtain a risk premium in the form of higher rates from small businesses than can be accounted for by higher average losses and operating expenses involved in lending to small business? Furthermore, if such a premium is observed, does it appear to be substantial or rather small, as the results of the foregoing analysis suggest?

It can be noted that a least some portion of the small remaining differences in adjusted gross interest earnings reflect the higher cost per dollar of loan in making the smaller loans that small business firms typically require. This is suggested by some preliminary work by Albert Levenson at the National Bureau of Economic Research, from which a guess can be ventured that at least part, if not all, of the remaining differences in gross earnings is accounted for by differences in the average size of loan of banks which lend in varying degree to small business. As shown in table 18, the average size of business loan is decidedly smaller for groups of banks which lend more extensively to small business. In addition, for whatever independent influence it has on loan costs, the average size of bank is also smaller.

The apparent influence on costs, and therefore on interest charges, of the average size of loan which banks extend is indicated more sharply in table 19. It is to be noted that so far our comparisons have been between lending to small business and lending to all other types of borrowers. This table, which consists essentially of a summary of some of the bank groups shown in table 17, permits a more direct comparison between banks which lend extensively to small businesses and those which lend extensively to larger businesses, though for a greatly reduced number of banks. Some banks which lend heavily to small businesses are excluded from this comparison because if they were included, lending to borrowers other than business could not be equalized for the two groups of banks.

As noted above, the average size of business loan differs much more sharply between these groups of banks than shown in the previous table, and so do average gross interest rates, which are shown here for business loans (computed from loan survey returns) as well as for total loans. It is noteworthy that as between the two groups of banks shown here the average difference in interest rates on business loans is almost precisely the same as the difference found in interest earnings on all loans, though the business loan rates were lower. (However,

this degree of correspondence was not found for various of the subgroups of banks which lend extensively to small business.)

TABLE 19.—*Summary averages for bank groups in table 17 which lend extensively to small and large business*

Item	Banks with over 25 percent of total loans to:	
	Small business	Large business
Number of banks	26	44
	Dollars	
Rates per $100 of total loans outstanding:		
Gross loss	$0.161	$0.067
Gross interest	5.384	4.586
Gross interest earning	5.689	4.925
Excess interest earnings over loss	5.528	4.838
	Percent	
Loan composition: Proportion of total loans to—		
Small business	35.22	15.86
Large business	17.87	37.43
Farmers	3.13	1.27
Consumers and on real estate	40.30	36.48
Average business loan	$9,944	$29,125
Average bank deposits (thousands)	19,390	95,144

For this sample, loss rates of banks which lend extensively to small business (35 percent of total loans) and moderately to larger business (16 percent of total loans) are on the average about 7½ cents per $100 of loans greater, or almost double, the loss rates of banks which lend extensively to large business (37 percent of total loans) and only moderately to smaller business (18 percent of total loans). At the same time gross interest earning rates of the 26 banks lending heavily to small business are about 76 to 80 cents per $100 of loans greater than for the group of banks which lend more to large business.

In this comparison of banks it turns out that although the loss experience in 1955 of the studied banks lending most extensively to small business is almost twice as large as experienced by banks lending most heavily to large business, the difference accounts for only 10 percent of the observed difference in interest earnings (a difference of 7½ cents in losses per $100 of loans compared with 76 to 80 cents in gross interest earnings per $100 of loans). The appreciably larger difference in adjusted interest earnings than found previously is believed to reflect at least in part, the larger difference in average size of business loan and related difference in costs per dollar of loan between the two groups of banks which engaged extensively in financing business.

(*d*) *Summary.*—From an analysis of a sample of 138 banks, which resemble the entire population of member banks (excluding the largest banks) in a number of respects, it was found that the banks that loaned extensively to small business experienced higher loss rates in 1955 than other banks. At the same time, their interest earning rates on loans were also higher than for other banks, and in somewhat greater degree than the loss rates. Whether the excess of interest

earnings is only partially or is fully accounted for by higher costs per dollar of loan in lending to small business (because of smaller average loan size, for example) is a matter we have not yet been able to explore sufficiently to reach a firm conclusion.

These results were obtained taking into account the influence of several factors on interest earnings and gross losses, including size of bank, variations in certain aspects of the loan portfolio, and average size of business loan. Such factors as variations in the industry composition of business, age of business, bank management (except as reflected in bank size), and recoveries on loans charged off were not taken into account. Moreover, the results pertain to a year of general prosperity and might be altered materially in a period of average or depressed economic conditions. Nevertheless, the broad results which emerge from this analysis, that loss experience from lending to small business exceeds that from lending to large business and that the differences in loss rates are not sufficient to account for the differences in interest charges are consistent with findings obtained in a number of other studies discussed in this report.

Appendix A

Method of Analysis of the Loss and Earning Experience of 138 Member Banks in 1955

This appendix sets forth the methods, data, and assumptions that underlie the analysis in section 7 of gross losses and gross interest earnings of banks lending in varying degree to small business.

1. THE DATA

The observations for the analysis were for 138 member banks participating in the 1955 Business Loan Survey from one Federal Reserve district. Data for each bank, identified only by code number, were coordinated from the survey and from the condition report for the same date, and from the report of earnings and dividends for the calendar year 1955. The data from each source are as follows:

A. Loan survey

1. Original amount and number of business loans outstanding on October 5, 1955, classified by the seven asset sizes of borrower, as shown in "Business Loans of Member Banks," April 1956, Federal Reserve Bulletin.

2. Total loans for commercial and industrial purposes and total real-estate loans for business purposes outstanding on October 5, 1955.

B. Condition report

1. Loan composition:
   (*a*) Commercial and industrial loans.
   (*b*) Real-estate loans secured by other properties.
   (*c*) Other loans to farmers and real-estate loans secured by farm land.
   (*d*) Consumer loans.
   (*e*) Noninsured, nonguaranteed real-estate loans secured by residential properties.
   (*f*) Guaranteed and insured loans.

2. Total loans inclusive of valuation reserves.
3. Total investments.
4. Total deposits.
5. Total assets.

C. Earnings and dividends report

1. Actual losses and chargeoffs on all loans.
2. Recoveries on all loans.
3. Interest earnings on all loans.
4. Total current operating expenses.

2. METHODS OF MEASUREMENT

Measurement of lending to small business

The pattern of bank lending to small business was developed from the estimated percentage that loans to small businesses constituted of total loans outstanding on the survey date. Thus, loans to small business were related to total loans outstanding, the same base used for gross losses, interest earnings, and components of the loan portfolio other than loans to small business. This follows a principle of classification suggested in connection with related considerations in an article by Wendy M. Gibson and Geoffrey H. Jowett, Three-Group, Regression Analysis, Applied Statistics, June 1957, p. 119. The actual ranges of loans to small business for these groups are: low, 2.58 to 12.44 percent; medium, 12.64 to 24.81 percent; high, 25.05 to 60.55 percent.

Small business borrowers were defined as those of total asset size under $250,000. This is consistent with the definition used by Koch in the article based on the 1946 Loan Survey, Business Loans of Member Banks, Federal Reserve Bulletin, March 1947. It is consistent also with findings of the 1955 Survey that "most business loans of member banks were to borrowers with relatively small assets * * *" and that these were concentrated in one of the two asset size classes under $250,000, irrespective of industry classification.[1]

This is true also for the district in which the sample banks are located. However, some loans included by this definition of small business might, in certain industries, properly be regarded as loans to large business (e. g., loans to service or retail firms of asset size over $50,000). Conversely, some loans excluded (e. g., loans to metal and metal product firms of asset size under $5 million) might be more properly included as loans to small business. Subsequent refinements on the present analysis might well take industry classification into account.

Estimates of the proportion of small business loans in total loan portfolios

Estimates of outstanding loans to smal business as a percentage of total loans were derived in two steps. First, the loan survey totals of commercial and industrial loans and business loans secured by real estate were taken as a percentage of total loans shown in the condition report. This fixed the percentage of loans outstanding to businesses of all sizes.

[1] Business Loans of Member Banks, Federal Reserve Bulletin, April 1956, pp. 329–330.

Second, estimates of the percentages of business loans to small and to large business (asset size of borrower under and over $250,000, respectively) for each bank were obtained from the distribution by borrower size of original amounts extended of loans outstanding on the survey date. The percentages of total outstanding loans to small and to large businesses were then derived as the product of the percentages in steps 1 and 2.

The results of these estimates are shown in table A–1. It can be seen that taken in relation to total loans, the degree of lending to small business is well distributed over bank size groups, with the exception of the largest deposit size banks. Very small banks sometimes have relatively low proportions of small business loans because they have relatively few business loans of any kind, very large banks usually have low proportions of small business loans because most of their business loans (dollar volume) are to large business.

TABLE A–1.—*Distribution of sample banks by estimated percent of loans to small business, by size of bank*

[Number of banks]

Loans to firms with assets under $250,000 as percent of total loans outstanding on Oct. 5, 1955	All banks	Size of bank (deposits in millions of dollars)						
		Under 2	2–5	5–10	10–20	20–50	50–100	100–500
0 to 4.99 percent	4	1	1				1	1
5.00 to 9.99 percent	19	2	2			1	3	11
10.00 to 14.99 percent	32	4	6	5	5	4	2	6
15.00 to 19.99 percent	25	4	3	4	4	4	6	
20.00 to 24.99 percent	20		4	2	6	7	1	
25.00 to 29.99 percent	20	3	1	4	2	8	2	
30.00 to 34.99 percent	8	1	3	1	2		1	
35.00 to 39.99 percent	3		1	1	1			
40.00 to 49.99 percent	5		1	1	2	1		
50.00 percent and over	2			1	1			
Total	138	15	22	19	23	25	16	18

These estimates of outstanding loans to small and to large businesses contain two potential sources of error. The first, common to all banks in the sample, is that estimates of outstanding loans to the two size groups of businesses were derived from the distribution of original amounts (of loans outstanding on the survey date) extended to small and large business. Thus, the estimates are in error to the extent that different time patterns of loan repayment prevail for the small and large borrowers, altering the ratio of outstandings to original amounts. However, a comparison of these estimates with published estimates based on outstandings (table A–2), suggests that the differences are not very large. Within bank size groups, they range from −5.5 percent to +4.5 percent of estimates based on outstandings. It appears that our method may have underestimated the percentage of small business loans in small banks, and overestimated it in large banks.

TABLE A–2.—*Loans to businesses with assets under $250,000, as a percentage of all business loans*

Size of bank (deposits in millions of dollars)	Estimated percentage, based on—	
	Original amount (sample banks: 138)	Outstanding amount (all banks in the district)
Under 2	87.9	93.0
2 to 10	73.3	79.8
10 to 20	64.0	59.5
20 to 50	44.0	40.4
50 to 100	33.4	28.8
100 to 500	17.4	16.9

The second source of error pertains only to the 82 banks of deposit size over $10 million. These banks sampled loans of sizes below specified amounts, whereas smaller banks reported complete figures. Since the estimates of loans to small and large borrowers for each bank were obtained from expanding the amounts of the sampled loans in accordance with the sampling ratio, they are subject to sampling error. While this may distort the pattern somewhat among banks, it is not believed to change the position of banks sufficiently to convert a bank which, say, relative to other banks actually extends to small business a large proportion of its total loans, to one which is depicted as lending a small or moderate proportion.

Estimates of outstanding loans to borrowers other than businesses

In order to adjust for the effects of other categories of loan portfolios on gross losses, interest earnings, and expenses, the loan portfolio was divided into noninsured loans outstanding to (1) businesses, (2) farmers, (3) consumers, and (4) on residential and other mortgages. To obtain estimates of the last three items as a percentage of total loans, consistent with estimates of outstandings to small and large businesses as a percentage of total loans, it was necessary to reconcile condition report data with those of the survey.

With one exception, business loan totals reported by each bank in the loan survey were taken as the ruling total. These totals were shown separately in the survey for loans classified in the condition report as "commercial and industrial" and "real estate loans secured by other properties." The major problem here is that the latter category in the condition report includes nonbusiness as well as business loans. Using the loan survey totals it was possible to subdivide the condition report real estate item into the amount loaned to business (as indicated by the survey totals) and the amount to other borrowers.

For most banks this was the only adjustment necessary. However, for some banks there were differences between the business loan totals reported in the loan survey and the corresponding items in the con-

dition report. Therefore, additional adjustments of other loan components were necessary in order to accept the loan survey totals consistently as the determining figure for business loans. The principle of adjustment was to distribute differences between the loan survey and condition report totals of loans to businesses in proportion to the relative importance of each of the remaining loan categories. These were loans to farmers ("other loans to farmers" and "real estate loans secured by farmland"), loans to consumers, and real estate loans on residential ond other properties (noninsured, nonguaranteed residential real estate loans and the adjusted amount of "real estate loans secured by other properties"), and a small residual amount of other loans. Since loans to consumers and the real estate loan category were subsequently combined in one total, the adjustments essentially affected the relative importance of the latter and loans to farmers. These adjustments involved quite small percentages of the loan portfolio for most banks, and were rather large for only a few banks.

3. RATIONALE AND ASSUMPTIONS OF THE ANALYSIS

The general rationale underlying the analysis in the report is that, apart from classification by bank size, loan portfolio composition at one point in time can be meaningfully related to losses charged off in the same year. Since losses have been generated from loans made over a period of time, this analysis assumes a reasonable amount of stability in the pattern of loan composition between banks. Stated another way, it is assumed that the differences among banks in the relative extent of their lending to small businesses, farmers, etc., measured at a given point in time do not as a rule shift erratically over short periods of, say, 2 or 3 years. Related analysis carried out at the National Bureau of Economic Research for groups of banks suggests that such patterns of loan composition are reasonably stable.

Secondly, it is assumed that by averaging over a number of banks that are similar in size or portfolio composition, a reasonably representative loss experience is obtained, even though the variation among banks within each class is large in a given year. This is particularly important for small banks, which, having few loans per bank, can be expected to show greater variation in loss experience in a given year than large banks with many more loans, even if both classes of banks were to lend to borrowers of identical risk characteristics.

Both of the preceding considerations—the representativeness of loan composition and variations in loss experience—suggest that if the type of analysis attempted here on a small scale were to be extended, it would be desirable to use average figures on loss experience and portfolio composition for each bank during a few years of similar economic conditions rather than figures for a single year.

Finally, it is to be noted that risk is measured in terms of gross loss experience, without adjustment for recoveries. This is done for two reasons. First, gross losses seemed preferable as a measure because they reflect experience on loan in the present or recent past. Recoveries pertain to loans charged off in the more distant past, and made in the still more distant past. Therefore, gross recoveries seem

less applicable to current risk positions or experience. Second, it would seem that a bank which typically shows large gross recoveries and large gross losses but the same net loss experience as a bank with low gross losses and recoveries, actually undertakes greater risk. One reason for believing this is that in a business recession, losses might be expected to increase at the same time that recoveries declined, in which case net losses of the first bank would be likely to increase more than net losses of the other bank. (Precisely this occurred in a recession even as mild as in 1949. Gross loss experience for all member banks increased from $63.4 million in 1948 to $81.0 million in 1949, while recoveries declined from $43.2 to $35.6 million.) Thus, a difference in net loss experience between the two banks might well develop when economic conditions are adverse. Nevertheless, our neglect of recovery experience does, of course, tend to overstate the actual level of losses.

4. COMPARISON OF SAMPLE AND ALL MEMBER BANKS

An important feature of the regional sample of member banks is its similarity to all member banks in certain operating experience and loan portfolio characteristics. The extent of similarity suggests that the text analysis of loss and interest earnings experience has analytical and substantive application for member banks in general, rather than for this sample or Federal Reserve district alone. The major and important difference between the sample and universe of banks is that the sample contains no banks of deposit size over $400 million. At least for this reason, inferences from our findings to the system as a whole should be regarded as tentative and subject to check against other evidence.

Table A–3 sets forth the comparison of gross loss and interest earnings experienced on all loans in 1955 for the sample and all member banks except those of deposit size over $500 million. From this table it can be seen that, in general, gross loss rates are lower and interest earning rates higher for virtually every class of the sample banks compared with all member banks. However, the ordering among size classes of each group of banks is strikingly similar. With some exceptions, gross loss and interest earning rates are higher for the smaller banks.[2] The most serious difference between the sample and all member banks is in the better loss experience of the sample banks of deposit size under $2 million.

A second comparison between our sample and all member banks can be made in terms of estimates of the percentage distribution of loans within bank-size groups to businesses of different size. This is set forth in table A–4 for the 138 banks, for all member banks in the Federal Reserve district in which our sample banks are located, and for all member banks countrywide (excluding banks of deposit size over $500 million).

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[2] The coefficient of rank correlation for rank order between the sample and universe of banks is significant at the 0.05 level for gross loss rates, and the ordering of interest earnings is almost identical between the sample and the universe of banks.

TABLE A–3.—*Comparison of sample and all member banks of deposit size under $500,000,000—Loss rates and interest earning rates by bank size, 1955*

Deposit size (millions of dollars)	Member banks in sample			All member banks with deposits up to $500,000,000		
	Number of banks	Per $100 of loans outstanding on Oct. 5, 1955		Number of banks	Per $100 of average loans outstanding in 1955	
		Gross loss rate	Interest earning rate		Gross loss rate	Interest earning rate
Less than 2	15	0.189	6.772	1,245	0.491	5.947
2 to 5	22	.293	5.828	2,232	.286	5.543
5 to 10	19	.138	6.233	1,329	.249	5.425
10 to 50	48	.130	5.594	1,297	.146	4.996
50 to 100	16	.105	4.956	177	.145	4.657
100 to 500	18	.117	4.444	179	.087	4.231
Total or average	138	.120	4.810	6,459	.146	4.715

Source: Survey sample of banks and Federal Reserve Bulletin, May 1956, p. 510 and p. 514.

TABLE A–4.—*Estimates of distribution of business loans by size of borrower and size of bank—Sample, district, and all member banks, 1955 business loan survey*

[Percentage distribution within bank size]

Size of borrower (total assets in thousands of dollars)	Size of bank (total deposits in millions of dollars)						
	Total	Under 2	2 to 10	10 to 20	20 to 50	50 to 100	100 to 500
Sample banks: [1]							
Under 50		39.5	23.6	15.3	9.2	6.9	3.4
50 to 250		48.4	49.7	48.7	34.8	26.5	14.0
250 to 1,000		6.2	21.8	28.4	35.6	32.2	26.3
1,000 to 5,000		4.6	4.4	6.5	14.6	24.7	29.0
5,000 to 25,000		.6	.3	.1	3.6	4.7	14.0
25,000 to 100,000				.1	.6	.6	6.0
100,000 and over		.6	.2	.9	1.6	4.5	7.2
All borrowers		100.0	100.0	100.0	100.0	100.0	100.0
District banks: [2]							
Under 50	7.1	44.4	27.7	14.6	7.9	6.1	3.0
50 to 250	23.4	48.6	52.1	44.9	32.5	22.7	13.8
250 to 1,000	29.1	5.2	17.1	29.9	36.7	31.4	28.2
1,000 to 5,000	22.4	1.4	2.5	7.9	16.5	27.0	27.9
5,000 to 25,000	9.7	.2	.4	.6	4.5	6.2	14.6
25,000 to 100,000	3.4			.4	.2	1.5	5.6
100,000 and over	4.9	.2	.2	1.7	1.7	5.1	6.8
All borrowers	100.0	100.0	100.0	100.0	100.0	100.0	100.0
All member banks [2] with deposits under $500,000,000:							
Under 50	9.9	51.0	33.2	17.6	10.4	7.0	4.1
50 to 250	24.7	40.5	45.6	44.3	34.8	25.6	14.0
250 to 1,000	23.9	6.0	12.9	24.0	29.8	31.4	22.6
1,000 to 5,000	19.6	1.1	3.3	6.8	13.0	22.5	26.4
5,000 to 25,000	9.7	.7	.7	1.7	3.8	6.2	15.7
25,000 to 100,000	4.2	.4	.7	.5	1.5	2.6	6.7
100,000 and over	6.6	.4	.6	1.1	2.4	4.7	10.5
Not ascertained	1.3		3.1	4.1	4.3		
All borrowers	100.0	100.0	100.0	100.0	100.0	100.0	100.0

[1] Estimates are based on original amounts of loans outstanding on survey date (Oct. 5, 1955).
[2] Estimates are based on amount of loans outstanding on survey date (Oct. 5, 1955).

Sources: 138 sample banks; district data; Federal Reserve Bulletin, April 1956, p. 332.

Estimates for all member banks in the district are shown because our figures for the sample banks are estimated from original amounts extended of outstanding loans on the survey dates whereas the all member bank figures are derived from actual amounts of loans outstanding on the survey date. Therefore the distributions might diverge for this reason rather than differences in distributions by size of borrower to which the sample and universe of banks typically lend. To circumvent this problem, comparisons of the distribution of loans to borrowers of different size can be made in two steps; the comparison of the sample banks (estimated from original amounts) with the district distribution (estimated from actual outstandings) and comparison of the latter and all member banks (estimated from outstandings) for deposit sizes under $500 million.

As shown in table A–4, the distribution of outstanding loans to businesses of varying size are very similar for each bank size group. Furthermore, it can be seen that, although there are some differences, the district and all member bank distributions for all bank sizes jointly, match remarkably well.

Finally, a comparison can be made between the general portfolio distribution of all member banks and the sample banks. This comparison is only approximate, since it is not possible to omit the large banks from the all member bank group. The respective percentages are as follows:

	Percentage of total loans, Oct. 5, 1955, that are—				
	Business loans—loan survey	Loans to consumers and noninsured residential real estate	Loans to farmers (nonguaranteed), condition report	Commercial and industrial loans	Loans on real estate secured by other properties
Sample banks	52.5	32.9	2.5	47.2	4.9
All member banks	45.1	28.5	4.2	42.1	4.2

This comparison indicates that the composition of broad components of the loan portfolio of the sample banks is reasonably similar to that of all member banks. It appears, however, that business loans are somewhat more important in the sample banks than in all member banks.

5 VARIATIONS IN LOSS RATES AMONG THE SAMPLE BANKS

Our final concern is to consider the variation among the sample banks in their loss experience in 1955. This is shown in table A–5, with losses during 1955 measured per $100 of loans outstanding on October 5, 1955.[8] Certain facts are readily apparent. Loss rates experienced by most banks are quite low, with the median rate at 0.056 percent (less than 6 cents per $100 of loans outstanding). To the extent these rates cluster, it is at loss rates below 0.099 percent, or under 10 cents per $100 of loans outstanding. Some 100 of the 138

[8] Losses are gross, not net of recoveries (see text above).

banks in the sample experienced loss rates lower than the simple average rate (about 15 cents) computed for all banks, shown at the foot of the table. Thus for a given year the variation and range in loss rates among banks are quite large relative to the low general level.

While the dispersion in loss rates is high among all size groups of banks, it is particularly high for small banks, that is banks below $10 million in deposit size. Many of these banks wrote off no losses, while others had very high loss rates.

Such variation among small banks is not inconsistent with expectations even if banks over all size groups maintained identical credit standards and loaned to borrowers of similar risk characteristics. Since smaller banks carry fewer loans than large banks, the variation among small banks in defaults or loans which go to loss will naturally be greater.

TABLE A–5.—*Distribution of sample banks by gross loss rate and size of bank, 1955*

[Number of banks]

Gross loss rate per $100 of loans outstanding Oct. 5, 1955	All banks	Size of bank (total deposits in millions of dollars)					
		Under 5	5–10	10–20	20–50	50–100	Over 100
0.000	18	10	4	2			2
0.001 to 0.024	27	6	3	3	6	7	2
0.025 to 0.049	19	3	3	3	5	2	3
0.050 to 0.074	17	3	1	3	5	1	4
0.075 to 0.099	11	3	2	1	1	1	3
0.100 to 0.124	5	2			1	1	1
0.125 to 0.149	3	1			2		
0.150 to 0.174	7	2	2	2	1		
0.175 to 0.199	2		1				1
0.200 to 0.249	6	1	1	2		1	1
0.250 to 0.299	6			3	2	1	
0.300 to 0.399	5	1		1	1	1	1
0.400 to 0.499	2				1	1	
0.500 to 0.749	5	1	1	3			
0.750 to 0.999	3	2	1				
1.000 and over	2	2					
Total	138	37	19	23	25	16	18
Simple average loss rate [1]	0.146	0.202	0.143	0.185	0.101	0.103	0.085

[1] For weighted average loss rate, see table A–3.

However, treating the total of all small banks as if it were one large bank adjusts for this effect. This was done before the rank correlation analysis shown in section 7 was attempted, so that all banks of deposit size under 2 million, 2 to 5 million and 5 to 10 million were treated as 1 observation each. The effect was to convert the 3 groups of banks into equivalents of roughly 20, 75, and 100 million dollar deposit size banks, respectively, and to reduce the number of observations to 85.

6. PLANS FOR FURTHER RESEARCH

Although the methods of analysis described in this appendix yield suggestive results, they necessarily should be regarded as tenative, for at least the following reasons:

(1) An important assumption which underlies the present findings is that the quality or risk composition is similar within types of loan categories, but different as between categories. If this is not so, the higher losses attributed to small-business lending may simply reflect lower quality or greater risk over all components of the loan portfolio of those banks which lend more to small business than other banks.

Stated another way, if the quality or risk characteristics of different loan categories (defined by type of borrower in this study) are more highly correlated within each bank than the quality of the same loan categories between banks, the analysis has limited validity for the present investigation which seeks to isolate risks and returns associated with lending to a given class of borrower. This question can perhaps best be investigated by studies of quality and loss experience with different loan categories within the same lending institution.

(2) Since bank size, loan portfolio composition, loan size, and size of borrowing firm all seem to be interrelated, it is difficult to separate clearly the influence of these factors upon differences in bank experience.

Both this and the previous reason reaffirm that an important area of research is to measure differences in loss experience on the basis of the loan itself, rather than by inferring it from differences in bank experience.

Apart from these considerations, an extension of the type of analysis presented here is in order, along the following lines:

(1) The same data for the sample banks, and additional banks if possible, should be obtained for the years 1955–57, in order to insure a more representative portfolio composition for banks and to reduce the random variation in a given year in loss experience between banks. It would be desirable, also, to extend the analysis to a period of business recession, in order to determine whether there is an differential impact of losses on banks which lend heavily to small business.

(2) In addition, it would be desirable to (*a*) redefine small business to vary with industry (although this may not be feasible); (*b*) separate new businesses from established businesses in the small-borrower categories; (*c*) subject the data to multiple-correlation analysis; (*d*) analyze differences in expenses in lending to small business, taking loan size and other factors into account.

Appendix B

Description of Robert Morris Associates Data

This appendix describes the lines of business included in our tabulations of grouped financial statements of business firms from the published studies of the Robert Morris Associates. These data were analyzed in section 4, size of firm and financial ratios; and section 6, recent changes in the creditworthiness and use of credit by small business.

Robert Morris Associates is an organization of commercial bank credit officers which each year compiles ratios based on composite financial statements and earnings reports of some 150 lines of manufacturing and trade concerns. The 1956 studies include statements for over 10,000 firms sent in by approximately 500 banks. The sample is approximately as good in other recent years and the studies are particularly useful for an analysis of small-business financing because the ratios of composite financial statements and earnings reports are given separately in each industry group for 3 different asset size categories—under $250,000, $250,000 to less than $1 million, and $1 million to $10 million. In many of the industry groups, of course, insufficiency of sample size prevents publication of one or more of the firm-size categories.

Industry groups selected for analysis in this report consisted of those groups containing a sufficiently large number of firms in both the smallest size category (under $250,000 assets) and the largest category ($1 to $10 million) so that the composite figures could be published in the annual statement studies of the Robert Morris Associates.

Table B–1 shows the lines of business represented in the data analyzed in this paper. The 43 industry lines sample was utilized for the comparison of levels of financial ratios between large and small firms in table IV–2.[1] The 51 industry lines sample represents categories complete in both the smallest and largest size groups in the years 1955 and 1956. The 51-industry sample formed the basis for analysis of industries utilizing greater or lesser amounts of bank credit from 1955 to 1956 as shown in tables VI–1 and VI–2.

Table B–2 lists the industries classified as Decreasing Credit Industries, i. e., industries in which a lesser use of bank credit by small firms in the industry but a greater use of bank credit by the large units in the industry occurred from 1955 to 1956. They are contrasted in table VI–2 with the control industries also listed in table B–2 in order to show the effect of credit ratios on the apparent availability and use of bank credit.

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[1] Subsequent to the original computation of the figures in table IV–2, page 455, the ratios for the intermediate size group ($250,000 to $1 million assets) were added. In a few cases, industries were represented in the 43-industry sample which had so few firms in the intermediate-size category that separate figures for this category were not published in the statement studies. Average ratios for the intermediate-size groups in some years, therefore, were based on fewer than 43-industry groups.

TABLE B–1.—*Industries and number of firms represented in samples of Robert Morris Associates data*

Line of business	1952		1953		1954		1955		1956	
	Small	Large	Small	Large	Small	Large	Small	Large	Small	Large
Manufacturing:										
Canned and dried fruits and vegetables [1]							10	30	10	33
Cotton woven goods	9	38	17	37	13	44	14	40	15	39
Other knit goods	19	41	18	44	17	46	14	30	10	47
Men's suits and coats	18	37	27	36	25	32	22	36	20	36
Men's work clothing [1]							15	33	14	37
Women's coats, suits, and skirts	25	18	27	11	34	14	25	16	30	14
Women's dresses	23	11	20	15	21	16	18	16	16	17
Planing mills, sawmills, plywood, veneer, and cooperage stock	16	31	16	33	16	37	13	45	11	51
Upholstered furniture	13	6	15	11	22	12	16	12	18	12
Doors and window sash	13	15	18	17	12	11	12	15	10	17
Containers and boxes	27	26	30	27	25	29	26	25	21	22
Paper specialties [1]							16	51	13	51
General commercial (job) printing	38	20	50	27	56	31	42	32	38	32
Drugs, medicines, and soaps	11	8	18	23	19	25	16	28	17	24
Industrial chemicals	12	25	19	27	19	25	20	23	25	33
Paints, varnish and lacquer	24	36	26	37	31	57	29	38	32	46
Plastics [1]							12	13	26	18
Foundries (castings of all types)	13	36	19	46	18	37	13	34	11	35
Stamped pressed and sheet metal products	30	56	39	70	39	77	33	76	23	83
Structural steel and ornamental ironwork	11	45	10	45	15	47	10	45	11	52
Equipment for public utilities and industrial use	10	84	16	73	13	74	13	73	10	73
Special industry equipment	14	56	19	56	23	59	14	56	16	57
General industries and commercial equipment	15	91	9	70	19	84	11	89	13	82
Machine tools and metal working equipment	23	47	27	48	40	53	34	50	20	61
General machine shop products	23	17	29	15	33	21	31	20	26	28
Jewelry	17	15	19	8	19	11	18	11	16	10
Wholesale trade:										
Meats and provisions	34	11	34	13	51	17	45	19	40	16
Dairy products and poultry	12	14	19	11	20	12	18	10	16	11
General groceries	52	108	61	95	61	100	46	106	42	102
Wine, liquor, and beer	23	36	38	43	39	45	40	47	30	50
Floor coverings	14	11	14	17	14	14	10	18	14	17
Dry goods	33	23	34	21	35	21	29	22	23	20
Lumber, millwork, and building materials	54	50	75	52	84	58	72	66	84	66
Wrapping or coarse paper and products	26	11	26	15	29	14	27	16	23	14
Plumbing and heating equipment and supplies	62	27	62	28	62	26	48	39	53	39
Hardware and paints	27	52	32	64	33	60	24	68	19	70
Iron and steel products (except scrap) [1]							14	25	11	27

See footnote at end of table, p. 104.

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TABLE B–1.—*Industries and number of firms represented in samples of Robert Morris Associates data*—Continued

Line of business	1952		1953		1954		1955		1956	
	Small	Large	Small	Large	Small	Large	Small	Large	Small	Large
Wholesale trade—Continued										
Iron and steel scrap	19	17	18	12	19	18	10	13	17	19
Electrical supplies and apparatus	42	24	52	26	49	20	36	15	37	23
Electrical appliances, radios and refrigerators	23	28	26	37	23	34	23	36	20	37
Industrial equipment	27	51	40	63	35	63	31	80	31	85
Automotive parts and accessories	53	14	64	16	62	17	50	20	61	22
General merchandise	10	11	14	20	12	13	13	16	14	15
General industries and commercial equipment	15	91	9	70	19	84	11	89	13	82
Machine tools and metal-working equipment	23	47	27	48	40	53	34	50	29	61
General machine shop products	23	17	29	15	33	21	31	20	26	28
Jewelry	17	15	19	8	19	11	18	11	16	10
Retail trade:										
Groceries and meats	30	33	40	32	47	31	33	26	27	30
Department stores	17	79	27	91	32	98	22	89	21	89
Family clothing	21	18	30	18	27	20	28	14	28	14
Lumber and building materials	119	61	166	61	154	67	140	79	124	72
Furniture	116	34	142	40	135	41	124	40	137	43
New and used autos [1]							148	42	198	48
Farm equipment [1]							27	15	27	13
Hardware [1]							79	17	70	17
43 lines total	1,218	1,472	1,502	1,551	1,552	1,631	1,313	1,649	1,279	1,725
51 lines total							1,634	1,875	1,648	1,969

[1] Line of business omitted 1952–54 because of incomplete data.

Source: Annual statement studies, Robert Morris Associates, Philadelphia, Pa., 1952–56. Small firms are those with assets under $250,000; large firms are those with assets $1 million and less than $10 million.

TABLE B–2.—*List of "decreasing credit" and "control" industries*

"Decreasing credit" industries:
A. Bank credit decreasing in "small" firms but increasing in "large" firms.
Manufacturing:
Other knit goods (cloth, outerwear and underwear).
Men's suits and coats.
Women's dresses.
Planing mills, sawmills, plywood, veneer, and cooperage stock.
Upholstered furniture.
Doors and window sash.
Containers and boxes.
Drugs, medicines, and soaps.
Industrial chemicals.
Foundries (castings of all types).
Stamped, pressed, and sheet-metal products.
Equipment for public utilities and industrial use.
Machine tools and metalworking equipment.
Wholesale trade:
Meats and provisions.
Iron and steel products (except scrap).
Iron and steel scrap.
Electrical appliances, radios, and refrigerators.
Retail trade: Department stores.
"Control" industries:
B. Bank credit increasing in "small" firms but decreasing in "large" firms.
Manufacturing:
Paper specialties.
General commercial (job) printing.
Wholesale trade:
Wine, liquor, and beer.
Wrapping or coarse paper and products.
Electrical supplies and apparatus.
Automotive parts and accessories.
General merchandise.
Retail trade: Hardware.
C. Bank credit increasing in both "small" and "large" firms.
Manufacturing:
Canned and dried fruits and vegetables.
Men's work clothing.
Women's coats, suits, and skirts (including sports and women's wear).
Paints, varnish, and lacquer.
Plastics.
Structural steel and ornamental ironwork.
Special industry equipment (including laundry, food, textile, etc.).
General industries and commercial equipment (including engines, pumps, elevators, refrigerating, office, etc.).
Jewelry.
Wholesale trade:
Dairy products and poultry.
General groceries.
Dry goods.
Retail trade:
Family clothing.
Furniture.
New and used autos.
Farm equipment.

TABLE B–2.—*List of "decreasing credit" and "control" industries*—Con.

"Control" industries—Continued
D. Bank credit decreasing in both "small" and "large" firms.
Manufacturing:
Cotton woven goods.
General machine-shop products.
Wholesale trade:
Floor coverings.
Lumber, millwork, and building materials.
Plumbing and heating equipment and supplies.
Hardware and paints.
Industrial equipment (including construction, oil, and mining).
Retail trade:
Groceries and meats.
Lumber and building materials.

NOTE.—"Decreasing" and "increasing" credit refers to an increase or decrease in the ratio of bank credit to total assets for the groups of firms, 1955–56. "Small" firms are those with assets under $250,000, "large" firms are those with assets of $1 million and less than $10 million.

4. ADEQUACY OF SMALL-BUSINESS FINANCING: ONE VIEW[1]

INTRODUCTION

The subject of the adequacy of small-business financing can be treated from a variety of viewpoints. A statistical approach based upon available data regarding the actual number of small businesses, their sources of funds, and the types of funds utilized would provide one picture of small business. A breakdown of these data by industry classification would provide a means of comparing the experience of different sectors of small business. These data could also provide a basis for comparisons within each industry of the experience of businesses of varying size. Essentially this approach amounts to an analysis of the supply of funds for small business.

Another approach to the problem of adequacy is from the demand side, that is, what small-business concerns state their needs to be. For this purpose the available data are sparse and in general poor. This deficiency stems not only from the limited number of surveys attempting to determine demand, but from the inadequacy of the survey questions considering the limitations of small business itself in expressing its needs. No statistical analysis based solely on the records of financing agencies can determine the adequacy or inadequacy of small-business financing.

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An analysis utilizing both the availability and the needs approaches may provide at least a limited view of small-business financing needs and a basis for exploring how small business can be better equipped to hold its position in a competitive economy. To improve the access of small business to financing, specialized institutions may be required. It is not to be assumed that because such institutions did not come into existence spontaneously there is no useful economic function for them. Articulate small-business demand for funds is limited to those possible sources which it knows from its own experience. The apparent hesitancy of private banking to experiment with new financing adapted to small business and to determine the feasibility of extension of more credit in this area may also mean that the possibilities for small business to present its case to competent bankers have been few and limited. The authors therefore share the feeling that an interpretation of financing adequacy would be too limited

[1] By A. D. H. Kaplan, The Brookings Institution, and Paul H. Banner.

if confined to a determination based solely upon statistical comparison of actual financing and stated needs.

In studying the financing needs of small business, two aspects mainly have been considered: the term for which funds are needed and the purposes for which small business requires financing. In the literature on small business, many reasons for the dearth of funds for small business are discussed. Generally it has been argued that venture capital for small business has dried up, partly because of high taxation and partly because of the preference of investors for publicly issued securities of well-known corporations. While total personal savings are high, they have become diffused as a result of high progressive income-tax rates. Investors with increased knowledgeability and greater access to the security markets have chosen the relative safety and liquidity of investment in large businesses, rather than venture into the more risky and personalized small-business area.

Few challenge the assumption that small business has inferior recourse to sources of funds. The major challenge to the assumption is indirect. It is argued that small business frequently suffers from incompetent or inefficient management. Direct lending experiences of the Federal Reserve System (under sec. 13b) and of the Reconstruction Finance Corporation are cited to support this conclusion. A second and more extreme argument is that any aid to small business merely penalizes success, raising costs to the consumers, and destroying incentives to self-help.

The lending experiences cited, as well as the analyses of business failures by Dun & Bradstreet, point up the inadequacies of management in many small businesses, but these inadequacies are not unconnected with financing inadequacies. Small business frequently is forced to extend itself beyond what its shoestring capitalization can afford. Perhaps management lacks the skill to know when it is overstretched, or perhaps the problem in many cases is that it knows too well but has no alternatives. Insufficient capital and financing facilities place a limit on management.

Point of view is clearly important in considering adequacy: bankers who have appeared before congressional committees have doubted whether soundly managed small firms which satisfy economic criteria for loans have any difficulty in securing adequate financing. The National Association of Manufacturers in a study, to be discussed later, concluded that only 12 percent of its members felt an unsatisfied need of funds, implying that this was not a large figure. Others have emphasized that high tax rates have made it difficult for either small or large business to secure adequate funds.

Senator Taft and Congressman Herter argued in 1950 that—

> It is useless to point out that the situation might be cured by a tremendous reduction in Government expenses and taxes.[2]

Though Senator Taft and Congressman Herter differed from other members of the committee in the reasons for an inadequacy in both equity and long-term loans to small business, they agreed that some form of Government activity was called for. Senator Capehart, in submitting a Senate report accompanying the bill establishing the Small Business Administration, stated:

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[2] U. S. Congress. Joint Committee on the Economic Report, Volume and Stability of Private Investment, 81st Cong., 2d sess., 1950, S. Doc. 149.

Your committee recognize that small and independent business is an essential of free, American competitive enterprise.[3]

The adequacy of small-business financing is in part a function of criteria which are obviously economic, social, and political in character. This is the tenor of the times. Aid to small business has become a part of our view of Government responsibility. If it were believed that for concerns of all sizes sound business financing needs are met and that there are no criteria beyond those now operating in the market to be considered, it would be sufficient to say that spontaneous market forces would have supplied the necessary institutional framework for small business to secure funds.

The concern with small business found in this country is not an isolated phenomenon but is matched, although not in the same form, in almost every country. The publication of the MacMillan report in England in 1931 raised the problem of small-business financing to the level of national economic policy. In this report the committee studying the problem of investment in England suggested that underinvestment was contributed to by the inability of small business to raise the capital it required even when the security it offered was perfectly sound. This lack of investment due to the structural inadequacy of the English money market was promptly labeled the MacMillan gap. The suggestion offered at that time by the committee was the formation of "a company to devote itself particularly to the smaller industrial and commercial issues." [4]

Today, when governments almost universally have assumed the responsibility for the maintenance of full employment in orienting their monetary, fiscal, agricultural, and labor policies, the suggestion that part of a full-employment policy should include raising the level of investment by providing greater financing facilities for small business may appear as only a small contribution. But it should be remembered that while industrial structure varies from one industry to another, and from one country to another, in terms of sheer numbers, the small business unit is the prevalent form of enterprise everywhere.

DEVELOPMENTS AFFECTING SMALL-BUSINESS FINANCING

Financing institutions and methods have changed markedly since the turn of the century and are in a continuous state of development. All have not enhanced the ability of small business to secure financing and it would be almost impossible to determine whether, on balance, they have increased the accessibility of funds for small concerns. The expansion of banking facilities and methods and the rise of finance companies and more specialized credit institutions have greatly improved the small-business man's ability to secure some types of financing. But changes have also occurred in the quity market and credit institutions and in techniques for handling savings which have resulted in a channeling of a large part of savings into securities of the corporate giants with their relative liquity and safety. There is an inference that these changes, which have paralleled the growth of big busi-

[3] U. S. Senate. Committee on Banking and Currency, Establishment of Small Business Administration and Liquidation of Reconstruction Finance Corporation, report, 82d Cong., 1st sess., 1951, S. Rept. 605.

[4] Great Britain. Committee on Finance and Industry, report, June 1931, Cmd. 3897 (London, H. M. S. O., 1931), par. 407.

ness, have resulted in an excessive direction of savings toward the financing of big business with long-term credit and equity capital. The volume of savings that the economy generates during any given period is not infinite, and concerns with more efficient access to the capital markets may secure more than is socially and economically desirable.

The securities market, for example, has developed into an efficient mechanism of directing equity capital into big business.[5] In essence it facilitates the flow of savings into share ownership in a corporation in which there is assurance of competent and continuing management. The expectation is that a market for the corporation's shares will always exist. Small business is usually a personal enterprise, however, not necessarily assured of indefinite existence and often peculiarly dependent upon one man. Institutions have not developed to provide small business with practicable access to the securities market.[6] And, the investor has not been offered any method by which he could exercise the same degree of passiveness in part ownership in small business as is involved in share ownership in big business.

The development of specialized capital markets for large-scale financing has been accompanied by improvements in the functioning of financial institutions serving small business as well. Forms of savings have changed, and many more assets of individuals can be monetized in order to secure initial or additional capital. The two greatest investments the average person makes today in durable goods, his home and his car, do not require the prior accumulation of savings once required. Just as for individuals, so for small enterprise, installment sales have conserved and stretched small-business capital. The use of rented machinery, trucks, and buildings has reduced small-business capital needs.[7] Not all innovations have served merely to increase the advantages of size.

Another development affecting small-business financing requirements has resulted from a change in basic industry structure. The importance of the independent wholesaler has declined in many industries. The large wholesaler not only distributed goods but also acted as a financing agent for small manufacturers and retailers. As big business has extended its distributive function and as large retailers have reached back to supply their own needs in various ways, the wholesaler has been displaced. In many industries he remains as a distributor, but his function as a supplier of trade credit is much less important than previously. The small manufacturer has found that the large retailer will frequently supply trade credit but the price on occasion is sacrifice of ownership or loss of product control. A large

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[5] The ability of the securities market to supply large sums of new equity capital to big business is seen in the many offerings of established firms, their subsidiaries, and even new corporations. Sears, Roebuck organized a financing subsidiary in November 1956 with capital of $35 million. Four months after organization it successfully issued $50 million in debentures, and 6 months later an additional $50 million in debentures. A more striking instance of big business utilization of the securities market is afforded by the automotive industry. In 1945 Kaiser-Frazer was organized with capital of $5 million and $10 million bank credit. It was able to raise $54.5 million capital by stock flotation shortly after organization. On a larger scale, the initial public issue of Ford Motor Co. stock in the amount of $658 million was oversubscribed in 1956.

[6] A major barrier to small-business access to the securities markets is cost. See study 13 (Pickering), p. 282.

[7] The use of rental equipment is not confined to small business. While the shoe repairman rents his equipment and bowling alleys rent automatic pinsetters, big business is also renting expensive sorting and calculating machines from IBM.

retailer such as Sears, Roebuck not only buys from independent manufacturers but also contracts for private label products; it owns partial interests in many firms and has complete ownership of others. Tieups such as these not only can mean loss of effective control by the operators of these particular firms but also the loss of markets formerly shared by other small manufacturers. Coincident with the backward integration from the retail level has been the forward integration from large manufacturing concerns to retail distribution. To the extent that large manufacturers have displaced jobbers and wholesalers as distributors, one source of trade credit has disappeared. The extent to which manufacturers have substituted their own trade credit is not precisely known.[8]

A development in financing which has helped small business, and particularly retailing, has been installment sale credit. The small retailer has found that, while he may not always be able to handle charge accounts, he can finance installment sales through banks or finance companies. Small manufacturers have also found finance companies willing to finance their purchases of equipment and the sale of their products. Financing terms, downpayments, length of sales contracts, and interest rates have at times become more important in the sale of a product than the price itself. With this knowledge an increasing number of concerns have organized affiliates to finance the sale of their products, not only to dealers but also to ultimate consumers. The beneficiaries of the new financing methods, distributors and retailers, are provided with sales facilities previously available only to their larger competitors. But in the case of financing affiliates of large manufacturing firms this advantage is normally limited to the sale of the product manufactured by the firm supplying the financing. The effect upon competition at the manufacturing level may thus prove detrimental to the small business which does not have the financial capability to supply competitive financing facilities.

One of the authors identified almost 70 finance companies owned by manufacturing companies and in most cases the parent firm can be found among the 500 largest industrial firms in the country.[9] The financing subsidiary of a large manufacturer provides the latter with a flexibility in financing arrangements which smaller competitors may not be able to match among independent finance companies or banks, especially in periods of credit stringency. A captive finance company exists primarily to further the sale of the parent firm's product, and periods of tight credit provide an opportunity to enhance a market position. For example, while praising the Federal Reserve Board's

[8] See study 2 (Andrews, Friedland, and Shapiro), p. 20.

[9] Paul H. Banner, Competition, Credit Policy, and the Captive Finance Company, scheduled for publication in Quarterly Journal of Economics, May 1958, analyzes the effect of captive finance companies upon competition and credit policies. The analysis herein draws upon that article.

Instances have occurred where small manufacturers have been offered sales if financing could be arranged and, upon their inability to do so, the larger competitor with the sales-financing subsidiary has secured the business. The utilization of a finance company to enhance a competitive position has been charged in two recent antitrust actions. In the case of the *Fruehauf Trailer Company* (Docket No. 6608 FTC), the Federal Trade Commission charged Fruehauf with using its financing subsidiary, Fruehauf Trailer Finance Co., to enhance its share of the truck trailer market to the detriment of the many smaller producers of truck trailers. In the second case, *U. S.* v. *GMC*, civil action No. 15816, July 6, 1956, the Department of Justice charged General Motors with the financing of the sale of buses on terms that its competitors with more limited resources cannot meet. An element of relief requested is that General Motors be required to offer to other bus manufacturers financing facilities on the same terms and conditions as it applies to its own buses.

policy of credit restraint, General Electric's president announced that his firm's credit subsidiary was helping those feeling the pinch.[10]

Credit subsidiaries are not confined to large companies; many automobile dealers, for example, have organized credit companies, while the large majority of credit companies are independent. The subsidiary of a large company can be expected to have an advantage over finance firms of comparable size because of the credit of the parent corporation. It can establish credit lines readily wherever the parent firm operates and, as an added advantage of the size of the parent, it may be able to obtain lower costs of borrowing. Whether a financing subsidiary pays a lower rate of interest than an independent finance company of comparable size for the same size loan is unknown. However, it can be noted that directly placed finance company paper carries a lower rate than prime commercial paper, and the subsidiary of the very large company with established financial connections should have little difficulty in tapping this source of funds. Thus the small business finds that competition is not restricted to product and price but extends to financing terms. It can only offer the facilities of banks and other independent financing agencies, whereas the large firm with the financing affiliate can offer another variable in competition.

EMPIRICAL DATA ON NEEDS AND AVAILABILITY

Surveys on small-business financing, area studies of business formation, and business histories dealing with sources of capital for small business have been plentiful over the years and have been frequently summarized. These studies give empirical support to the well-known fact that small business relies upon personal savings as the major source of venture capital. With regard to small business borrowing from banks, the surveys indicate that a significant number of small businesses experience difficulty in obtaining credit, in particular long-term credit. Generally, the smaller the size of business, the greater the unsatisfied credit demand. Concurrent studies suggest that credit ratings of a substantial proportion of rejected borrowers are high. Length of term and inadequacy of capital appear prominently among the reasons for refusal of credit to small firms, in spite of satisfactory credit ratings.

Prewar studies

One author of this paper has summarized the major prewar surveys of small business financing.[11] These included the 1935 survey by the Bureau of the Census, Survey of Reports of Credit and Capital Difficulties by Small Manufacturers; Report on Availability of Bank Credit in the Seventh Federal Reserve District, by C. O. Hardy and J. Viner (1935); and two studied for the National Industrial Conference Board: Ralph A. Young, The Availablity of Bank Credit (1932); and L. H. Kimmel, Availability of Bank Credit, 1933–1938, (1939).

In the 1935 census study which covered 6,158 manufacturers with 20 to 125 employees, it was found that 71 percent of these firms were

[10] Ralph J. Cordiner, quoted in Wall Street Journal, December 14, 1956.
[11] A. D. H. Kaplan, Small Business: Its Place and Problems (McGraw-Hill, 1948).

regular borrowers from commercial banks, and that 45 percent of this number reported difficulties in optaining credit. With regard to long-term financial requirements, about one-half the replies indicated a need for, but no source of such credit. The Hardy-Viner study of 2,000 credit refusals in the Chicago Federal Reserve District in the years 1933–34 concluded that there was a "genuine unsatisfied demand for credit on the part of solvent borrowers, many of whom could make economically sound use of working capital."

In the first of the National Industrial Conference Board studies the credit histories of 3,438 firms in the period 1929–32 showed that smaller firms experienced a greater proportion of credit rejections than larger firms. In its later study the NICB (using a sample of 1,755 firms) again found a concentration of credit rejections among the smaller firms.

While these prewar studies emphasized size of firm as a variable in credit availability, some attention was also paid to the term of financing needs. The NICB studies indicated that in a significant number of cases the need was for intermediate-term credit rather than short-term commercial bank credit This difficulty was aggravated in the depression period by criteria established by bank examiners which emphasized liquidity.

Postwar surveys

During the war increased and pressing demand for the output of small business impelled both private industry and Government to provide for small-business financing needs; this has been also true, although to a lesser extent, since the war. There was less emphasis on how small business could grow and tap the public security markets, and more realization that new techniques were needed for securing funds for small concerns. There was greater realization that a healthy small-business community required additional investment funds, either as long-term loans or as equity capital. Even assured contracts, almost limitless demand for goods and services, and Government orders did not generate the funds small business needed for equipment and for working capital without Government intervention. The postwar reconversion period emphasized these needs.

Among the pertinent statistics available for the postwar period are studies by the Reconstruction Finance Corporation, the Federal Reserve System, and the Department of Commerce. Since the RFC, by statute, could lend only after the prospective borrower had been refused by a number of banks, its loan applications provide a picture of the type of loan small business has difficulty in securing from banks. In a sample of 1948–49 RFC loans, 46 percent of the number of bank refusals of loans to small business were reported as due to excessively long maturities.[12] Lest this appear to indicate that only small business uses term loans, an analysis of corporate liability and capital accounts for manufacturing indicates that a larger proportion of loans to big business is in the form of long-term loans than is the case for small business (table 1). Thus, while bank loans obtained by all manufacturing corporations for more than 1 year were equal in volume to those payable within a year, firms with assets of less than $250,000 obtained only one-third as much long-term money as short-term bank loans,

[12] U. S. Congress. Joint Committee on the Economic Report, Volume and Stability of Private Investment, hearings, 81st Cong., 1st sess., 1949. See also study 3 (Moore, Atkinson and Kilberg) and study 12 (Arlt).

while firms whose assets were in excess of $100 million obtained twice as much in long-term loans as in short-term loans.

TABLE 1.—*Outstanding bank loans to manufacturing corporations, by asset size of borrower, Dec. 31, 1948*

[Loans per $100 of assets]

Assets of borrower (thousands of dollars)	Loans repayable in—	
	Less than 1 year	1 year or more
Under 250	$4.15	$1.46
250 to 1,000	4.33	1.57
1,000 to 5,000	4.08	1.82
5,000 to 100,000	3.33	2.94
100,000 and over	1.69	3.40
All sizes	2.73	2.90

Source: U. S. Senate, Joint Committee on the Economic Report, Factors Affecting the Volume and Stability of Private Investment, 81st Cong., 2d sess., S. Doc. 232 (1949), p. 112.

In the fall of 1946, the Federal Reserve System conducted a nationwide survey of business borrowers at member banks. It was found that nearly two-third of member bank loans to small business had maturities of 6 months or less, and 78 percent had maturities of less than a year (table 2).

No similar classification of all member bank loans was published, but data on term loans and total loans for all borrowers are available for comparisons. Using the same classification of small business as in the table above, long-term loans accounted for 19.9 percent of total loans to small business. All borrowers received 34.4 percent of total loans as long-term credit. Firms with assets in excess of $5 million obtained 51.2 percent of their total loans as long-term credit.[13]

TABLE 2.—*Member bank loans to small business, Nov. 20, 1946, by original maturity of loan*

Original maturity	Number of loans [1]	Percent	Cumulative percent
Demand	65,000	12.5	12.5
6 months and under	272,000	52.7	65.2
6 months to 1 year	64,000	12.4	77.6
1 to 3 years	69,000	13.4	91.0
3 to 5 years	22,000	4.3	95.3
5 to 10 years	20,000	3.9	99.2
Over 10 years	4,000	.8	100.0
Total	514,000	100.0	

[1] Details do not add to total due to rounding.

Source: Charles H. Schmidt, Member Bank Loans to Small Business, Federal Reserve Bulletin, August 1947.

The broadest survey of small-business financing demand was undertaken in 1955 by the Office of Business Economics of the Department of Commerce. Over 15,000 questionnaires were sent to small

[13] Albert R. Koch, Business Loans of Member Banks, Federal Reserve Bulletin, March 1947.

and intermediate-size businesses and approximately 5,000 useable responses from manufacturing, construction, and trade concerns were received.[14] Firms were queried concerning their demand for funds in the 12-month period ended June 30, 1954.

The Department of Commerce survey determined that 90 percent of unfilled demand for financing was for loans with a maturity of 1 year or more whereas only 30 percent of the loans actually obtained were for this term. Whether this is a more favorable picture by comparison with the Federal Reserve study is questionable since nonbank lenders were included in the Commerce study.

In considering the demand for funds, the Commerce survey found that small- and medium-size businesses predominantly desire loans rather than equity capital. In percentage terms, 93 percent of the funds were desired in the form of loans. Of the loans obtained, as noted above, 30 percent were for 1 or more years. Of the loans desired but not obtained, 90 percent were for 1 or more years. The size of the unfilled demand is made more striking in the light of the survey instructions, which were to report as unfilled demand only that for which there was a specific financing plan in mind.

The data can be recast to indicate the demand for and supply of funds classified as short-term, term, and equity:

Type of financing	Demand	Supply
	Percent	*Percent*
Short-term	51	67
Term	42	30
Equity	7	3
Total	100	100

For short-term funds the unfiulfilled demand was relatively negligible.[15] Of the aggregate demand for funds, 49 percent was for term and equity capital and of this demand less than half was satisfied. Equity represented 14 percent of the combined term and equity demand, but 9 percent of the term and equity funds supplied were in the form of equity capital.

The distribution of the number of loans sought, comparing those obtained with thoes unobtained, shows completely opposite changes as length of maturity increases:

Period to maturity	Number of loans	
	Obtained	Unobtained
	Percent	*Percent*
Less than 1 year	69.5	10.5
1 to 3 years	22.9	38.0
3 years or more	7.6	51.5
Total	100.0	100.0

Source: McHugh and Ciaccio, op. cit.

[14] Laughlin F. McHugh and Jack N. Ciaccio, External Financing of Small- and Medium-Size Business, Survey of Current Business, October 1955.

[15] Whereas 69.5 percent of total loans obtained were for less than 1 year, only 10.5 percent of the unobtained loans were for this short term.

These data show how much greater is the availability of short-term than of long-term credit. And, within term credit, there is a greater availability of intermediate-term credit; that is 1- to 3-year term than of long-term credit; that is, more than 3-year term.

In 1950 the National Association of Manufacturers conducted a survey to determine the financial problems facing its own membership.[16] No attempt was made in this study to separate short-term from term or equity needs. The sample covered manufacturing concerns only; it was limited in scope and the questions were ambiguous. The NAM survey concluded that—

(1) 12 percent of the respondents were in immediate need of funds.

(2) The smaller the firm, the greater the need for additional funds. Of the 395 members in need of funds, 222 had less than 100 employees.

(3) The demand was overwhelmingly in favor of borrowing.

(4) The larger the firm, the greater was the tendency to favor equity financing.

(5) With regard to the use of funds, about one-half wanted funds for working capital and one-half for expansion, replacement, and modernization.

A comparison of the Commerce and NAM survey is not too fruitful. The NAM study was undertaken in 1950, the year in which the Korean war broke out, marking a sharp change in the business climate. The 12 months ended June 30, 1954, on the other hand, was a period of sustained economic activity but with an uncertain mood prevailing as to the future. The NAM survey determined that 12 percent of the respondents were in immediate need of funds. The Commerce survey determined that 49 percent of the manufacturing firms surveyed wanted outside funds, of which 23 percent did not obtain all the funds they wanted. Whether the differences are due to wording of the questionnaires, sampling difficulties, and biases such a membership in the NAM, or differences in the economic climate, is unknown.

In the Commerce survey, field interviews determined that respondents frequently did not indicate a need for funds, or did not elaborate upon the type of funds desired, since from general knowledge they were convinced that there was no use in trying to secure such funds.

> A significant portion of the unmet demand was never brought to the attention of lenders, as some of the reporting firms felt that there was "no use in trying." Either from past experience or from "common knowledge" in local trade circles, the businessman decided that his request would get turned down and hence made no effort to raise the funds * * *.
>
> Field interviews revealed that a number of concerns may have reported as being satisfied with their present financial arrangements, although they had a specific unfulfilled demand in mind; these firms reported in such a manner because, from general or specific knowledge of supply conditions, they felt there was no use in trying seriously to obtain funds from known potential sources.[17]

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[16] National Association of Manufacturers, Financing Small Business, Economic Policy Series, No. 70 (Association, 1956). The NAM classified its membership on the basis of the number of employees in order to define small business. Of the respondents, 27 percent had 50 or less employees, 48 percent 100 or fewer employees, 73 percent 250 employees or less, and 15 percent had 500 or more employees.

[17] McHugh and Ciaccio, op. cit.

The NAM survey made no attempt to deal with this vexing problem and the use of the phrase "in immediate need" possibly precluded any thought on the part of respondents as to whether a desire should be expressed for other than critical needs.

BASIC DEFICIENCY: TERM NEEDS OF SMALL BUSINESS

The surveys and literature indicate clearly that financing facilities are reasonably adequate for short-term borrowing but that as the term for which financing is desired lengthens, facilities become less adequate. Since equity capital and term loans are closely associated with business formation and growth, they are of special interest in the context of this paper. Three particular situations stand out as calling for long-term loans or equity financing:

(1) The inception of a new business—the venture capital problem.

(2) Capital for growth of the established small business: expansion needs; and survival or maintenance of market position.

(3) Business continuity—the problem of ownership transference.

The new business

Each year an average of more than 300,000 new businesses are formed in this country, and each year almost as large a number are discontinued.[18] There is apparently no dearth of persons willing to form new businesses but the probability of success is low. It is estimated that about half of all business failures occur during the first 2 years of business life.[19] A basic reason for the marked turnover in the new business population is undercapitalization. Undercapitalized firms cannot weather sustained financial loss for any period, and are the first to go under in a business downturn.

With regard to equity position, the major source of funds for new small businesses is personal savings. Provision of equity capital by a financial institution requires an extensive knowledge of the business and its backers, considerable investigation, or active participation to assure protection of investors' funds—activities which most financial institutions are not equipped to conduct for small investments.[20]

The consequent reliance on personal savings is borne out by the Department of Commerce survey of sources of capital for new enterprise in retail and wholesale trade and in manufacturing, as shown in table 3.

[18] For further discussion of changes in business population, see study 9 (Markham), p. 197.

[19] A distribution of business failures in 1954 by age of business was reported in, Betty C. Churchill, Age and Life Expectancy of Business Firms, Survey of Current Business, December 1955:

Age of firm	Cumulative percent	Age of firm	Cumulative percent	Age of firm	Cumulative percent
1 year or less	24.9	5 years or less	78.4	9 years or less	90.3
2 years or less	50.7	6 years or less	82.0	10 years or less	91.8
3 years or less	65.3	7 years or less	85.0	More than 10 years	100.0
4 years or less	73.2	8 years or less	87.7		

[20] External sources of equity capital are considered further in pt. II: Surveys of Credit and Capital Sources, survey VII, p. 172.

In retail and wholesale trade and manufacturing, better than two-thirds of initial capital for the smallest categories of business comes from personal savings. For larger businesses it is significantly lower. Bank loans as a source of initial capital gain importance as size of concern increases.

The data do not indicate separately the role of friends and relatives. Empirical data on this are scarce. A study of small business formation in Columbus, Ohio, determined that 86 percent of the capital of the sample firms studied came from the savings of promoters of these enterprises and only 5 percent from relatives and friends.[21]

TABLE 3.—*Sources of funds for new firms, by size of initial investment* [1]

[Percent]

Source of funds	Wholesale trade: Initial investment (thousands of dollars)				Retail trade: Initial investment (thousands of dollars)			
	Under 20	20–49	50–99	100 and over	Under 10	10–19	20–49	50 and over
Personal savings	72	63	30	----	70	65	57	42
Capital stock	2	17	25	----	1	2	8	11
Supplier credit	11	2	22	----	7	9	9	14
Bank loans	7	12	10	----	10	11	16	17
Mortgage loans	----	----	1	----	1	1	2	4
Other	8	5	13	----	11	12	8	12
All sources [2]	100	100	100	----	100	100	100	100
	Corporate manufacturing: Initial investment (thousands of dollars)				Noncorporate manufacturing: Initial investment (thousands of dollars)			
Personal savings	----	----	----	----	68	61	63	55
Capital stock:								
Officers and directors	74	70	58	34	----	----	----	----
Parent company	5	6	9	18	----	----	----	----
General public	2	1	5	8	----	----	----	----
Supplier credit:								
Merchandise	1	3	4	4	2	7	3	6
Equipment	4	4	3	5	7	9	4	6
Bank loans	3	4	10	16	10	8	20	19
Other	12	12	10	15	13	15	10	15
All sources [2]	100	100	100	100	100	100	100	100

[1] Excludes firms with no employees. Data for trade cover the period 1945–47 and for manufacturing, 1946–48.

[2] Details may not add to totals due to rounding.

Sources: Lawrence Bridge, Capital Requirements of New Trade Firms, Survey of Current Business, December 1948. Lawrence Bridge and Lois E. Holmes, Capital Requirements of New Manufacturing Firms, Survey of Current Business, April 1950.

The willingness of entrepreneurs to enter the ranks of small business, using their own savings, does not mean that there is a sufficiency of equity capital. The statistics which indicate a lack of desire for outside equity must be interpreted in the light of small-business hestitation to turn to outsiders for fear of loss of control.[22]

[21] James F. West, Small Business Promoters—A Case Study of Columbus, Ohio, Journal of Industrial Economics, November 1956. A similar study of British firms indicated that founders of only 5 percent of the firms studied received help from relatives. In a few cases after the successful launching of the business, family provided additional capital. See F. R. Jervis, The Supply of Capital to New Business, Journal of Industrial Economics, February 1956.

[22] Where this fear is allayed, there does not appear to be the same hesitation. In England, for example, the Industrial & Commercial Finance Corp., Ltd., which was organized to help small business, at the end of 12 years of operation had 42 percent of its outstanding investments in preferred and common shares. Industrial & Commercial Finance Corp., Ltd., London, Annual Report, 1956.

In automobile retailing, some equity is supplied to small business coupled with some assurance of continued small-business ownership. The 3 major manufacturers, accounting for about 95 percent of all passenger-car production, have arrangements through which long-term capital is offered to dealers.[23] This plan was initiated in 1929 by General Motors which organized Motors Holding Corp., later reorganized into a division of the company. Motors Holding division supplies capital to individuals believed capable of successfully operating a dealership; funds are also made available for expansion needs of existing dealerships and to buy out inactive partners.

The individual must supply a minimum of 25 percent of the required capital and Motors Holding division supplies the remainder. An essential feature of the plan is that provision is made for the orderly transfer of GM's stock ownership to the individual dealer. In the first 26 years of its life, Motors Holding division has enabled 752 dealers to acquire their own businesses.[24] The buy-out time has averaged less than 3 years.[25]

Both Chrysler and Ford have organized similar plans for their dealerships in recent years. Ford has a dealer-development plan by which the corporation may furnish up to 80 percent of the required capital for a dealership. As in the GM plan, the dealer is given an opportunity to purchase Ford's ownership.[26] At the end of 1955 there were 65 automotive dealerships operating under the Ford plan and at the end of 1956, 76 auto dealerships and 1 tractor dealership.[27] Chrysler inaugurated its dealer-enterprise plan in 1954. It will supply up to 75 percent of the capital required for a dealership. Within 2 years of operation it had invested $4,364,000 in 47 dealerships.[28]

One source of equity capital for manufacturing concerns is firms which operate in the venture capital field, seeking capital gains through investment mostly in radically new products. American Research & Development Corp. (A. R. & D.), for example, seeks investments in companies which are new, small, and financially weak. It believes it performs a socially important function in seeking profitable investments.[29] It generally buys a substantial stock interest in

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[23] The programs of the automobile companies are not assistance programs but are derived from their competitive marketing efforts. Automobile companies, after experimentation with factory-owned retail outlets, decided that dealer-owned outlets were more satisfactory. They have, therefore, used their financial power to develop the best possible dealerships. The Ford Motor Co., early in its history, had representatives visit local banks prior to the establishment of a dealership. It agreed to deposit funds in the bank provided that the bank loaned money to the Ford dealer. In the depression, Universal Credit Co., which had financed Ford dealer retail sales, organized a subsidiary, Universal Dealers Co., to make long-term loans to dealers.

[24] U. S. Senate, Committee on Interstate and Foreign Commerce, Auto Marketing Practices, hearings, 84th Cong., 2d sess., 1956.

[25] The terms of the dealership agreement provide that in addition to his salary as manager of the dealership, the dealer receive a bonus of one-half of all profits in excess of 15 percent on paid-in capital. The remaining profits are divided between the dealer and Motors Holding division according to stock ownership. The dealer must use all the profit accruing to him plus one-half of his bonus to retire the stock held by Motors Holding. The advantages to the dealer are obvious. He secures equity capital, but in a form which he knows is temporary since the more successful the firm, the faster he increases his equity as he purchases GM's equity in the dealership. In this manner General Motors assists persons who are experienced but who lack sufficient capital to open their own dealerships.

[26] Auto Marketing Practices, op. cit., p. 1052.

[27] U. S. Securities and Exchange Commission, Form 10K, Ford Motor Co., 1956. May be consulted at SEC.

[28] U. S. Securities and Exchange Commission, Form 10K, Chrysler Motors Corp., 1956. May be consulted at SEC.

[29] U. S. Congress, Senate, Committee on the Judiciary, Legislation Affecting Corporate Mergers, hearings, 84th Cong., 2d sess., 1955, on S. 3341, S. 3424, and H. R. 9424. Statement of Merrill Griswold, American Research and Development Corp., June 2, 1956.

the company and, in most cases, as capital requirements increase with growth, it increases its investment so that it frequently assumes voting control. It replaces management when it feels this to be necessary. A. R. & D. has secured preferential tax treatment from the Government as a regulated investment company. Under the tax laws, registered investment companies must have at least 50 percent of their assets in companies in which they do not own more than 10 percent of the voting stock. The Internal Revenue Act of 1951 modified this restriction for venture capital companies on the assumption that they may have to supply a greater proportion of the capital to exploit new inventions. At present A. R. & D. is the only venture-capital company which has applied for this tax advantage, indicating the limited results of this tax provision. An analysis of A. R. & D. annual reports indicates that from 1946 to 1956 it earned $105,448 in regular income, $506,328 in realized capital gains, and the market value of its portfolio grew from $6,195,528 to $9,611,390.

As noted in the Commerce study, small business expresses a demand primarily for loan capital. To some extent this demand is met for established as well as for new small concerns. New business has no history upon which financing institutions can rely, but founders of many small businesses are sufficiently experienced to assure themselves of some bank credit, and banks will lend where there is a suitable equity position.

The only empirical data comparing the ability of new and old firms to borrow funds were gathered in the 1954 Department of Commerce survey previously mentioned. In this survey new firms were defined as those organized in the period following March 1951, that is, firms with less than 4 years' experience. These statistics, therefore, do not refer strictly to new business formation. The survey indicated that new firms reported a need for outside financing more frequently than older firms, but that older firms obtained a slightly larger proportion of funds desired. New firms had a greater demand for equity funds, and of the firms surveyed almost one-half of this demand was obtained. It should be noted that only surviving firms were surveyed and mortality among small businesses is high. With regard to source of funds, new firms were more dependent than older firms upon nonbank sources (table 4).

TABLE 4.—*Number of loans obtained, by source*

[In percent]

Source	Established firms	New firms
Bank	79.3	68.8
Individual [1]	8.4	15.7
Others [2]	12.3	15.5
All sources	100.0	100.0

[1] Partner, corporate official, acquaintance or relative.
[2] Insurance companies and other financial institutions, supplier, equipment dealer, factory, Government, and other.

Source: McHugh and Ciaccio, op. cit.

Capital for growth

In discussing the problem of small business, there is a tendency to visualize its potentials solely in terms of the new manufactured product—the exciting innovation. But by virtue of numbers, as well as the development of know-how and awareness of the firm's problems, the need for financial help to firms in existing industries, whether they be in manufacturing, service, or trade, is of much greater magnitude. The new invention, if commercially feasible, stands a better chance of attracting capital than the old product or service.

The existing firm which is ready to turn out a new product or offer a new service, or to serve a new area, has as great a need for capital as the new firm attempting to break into a market. Growth places financial requirements on a firm which frequently result in a shoestring-type operation that invites disaster. It is at this stage of development that loss of control looms as an alternative to sharp curtailment in growth or even failure. A typical example is the small manufacturing business with a relatively unseasoned product and growing demand. Starting with minimum capital and multipurpose machinery, significant cost reductions are possible through specialized equipment and increased volume. In essence it is ordinarily probable that there will be a long-term trend of declining costs for the product. Situations like this are not hidden for long and, if investment is not made in new equipment, a competitor will invade this market. The entrepreneur is forced either to expand or to resign himself to being a high-cost producer. Thus the entrepreneur in reality faces a critical period throughout his growth when he must always balance rapid growth and financial weakness against slower growth and possible loss of market.

Yet the possibilities of relatively minor and unspectacular changes—where an established firm seeks to take on a supplementary line of apparel, paper boxes, or accessories, or a change in process that makes an old product available to a new use, e. g., a producer durable redesigned for consumer use—can add up to new growth for an established small enterprise. Yet a special institution tailored to review and finance such common situations which may require additional long-term capital, including fixed capital, is not available to the firm contemplating such an advance in its growth cycle, although individual concerns facing such problems may be able to obtain proper financing from banks or other institutions.

Continuity of enterprise

Another special problem of small-business financing is that of transference of management or ownership so as to assure continuity. The reality of this problem is in part reflected in the reluctance of persons to invest in small business because of the crisis occurring with the demise or retirement of the founder or principal executive. In small business many functions are performed by one person and there is generally no depth in executive ranks for leadership to be readily transferred.[30] The owner of a small business which has grown through

[30] See study 15 (Clark), p. 322.

reinvestment of profits frequently offers its founder a sizable return only by sale. In addition, because of the founder's knowledge of how personal his success has been, he will frequently want complete severance upon retirement and a return of his capital for reinvestment in more liquid or less risky ventures.

Upon death, the problem of transfer of management becomes even more pressing upon heirs who are not directly associated with active management. Frequently the problem of transfer becomes a financial one because of estate taxes. The orderly transfer of small-business ownership creates a need for capital and is reflected in the large number of businesses offered for sale each year to big business.[31] Usually only big business has the assets to make acquisitions at such times. While owners of small businesses might prefer not to sell out to chains or to large industrial empires, they have few alternatives when an immediate transfer of ownership is necessary.

In England, the extent of death duties has made this problem more severe; in 1953, three firms were organized to deal specifically with it.[32] In this country, motors holding division of General Motors will supply capital funds to buy out partnership shares or entire automobile dealerships which must be sold due to death. In general, however, no adequate capital institutions exist in this country capable of dealing with this problem. Frequently capable persons who are available within a business and could operate it successfully do not have the capital to assume ownership. A financing institution which would approach this problem with the purpose of maintaining the independence of small business by orderly transference of ownership would contribute to the health of the entire small business community.

CONCLUSIONS

Since the days of the MacMillan report many improvements in small-business financing have occurred, but from the complaints of small business it would appear that this "gap" still exists. The problem now appears perhaps not in the same light as viewed in the 1930's, when equity capital raised through public issuances was an objective for small business, but in the more general framework of investment opportunities, whether they be satisfied through equity capital or through loans.

With respect to adequacy of small-business financing, two conclusions emerge. First, our banking institutions do satisfy most borrower demands for short-term loans. As length of term increases, inadequacies in our financing structure become more apparent. Second, small business rarely expresses a desire for what it knows is unavailable.

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[31] An officer of Swift & Co., in response to a query by one of the authors, estimated that during the decade following World War II the company received approximately 8,000 propositions for the sale of small packing plants and related food enterprises which the owners or executors wished to dispose of. A listing by General Motors of its acquisitions and the circumstances of the acquired firm in many instances shows this same problem of transference. The widow of Albert Champion sold her interest in the A. C. Spark Plug Co. to General Motors. Upon the death of James Allison, the Allison Engineering Co. was offered for sale. Mr. Doehler, founder of Doehler Die Casting Co., was anxious to withdraw capital to diversify his investments: one owner of North East Electric Co. (ultimately Delco Appliance Co.) was faced with ill health and the other was looking forward to retirement; the widow of the founder of Sunlight Electric Co. did not feel that she should have a large interest in a business which she was not prepared to operate (U. S. Senate, Committee on the Judiciary, Study of Antitrust Laws, hearings, 84th Cong., 1st sess., 1955, pt. 8, pp. 4292–4310).

[32] Raymond Frost, The MacMillan Gap 1931–1953, Oxford Economic Papers, New Series, vol. 6, June 1954, p. 192.

The greatest need is for an institution to which small business can bring its case for capital. There is no opportunity for small business to outline its plans for growth, indicate the type of capital it requires, and secure advice on and consideration of its plans. Small business could think in this manner if there were a point in so doing. As long as small business gets its capital in a haphazard way it will think in this manner. There is no purpose in small business seeking capital to plan its growth if the type of capital required is unavailable. In the same vein, asking small business about its immediate needs is not giving small business an opportunity to discuss its desires and what it could accomplish if capital were available. This is approaching small-business financial requirements from a bail-out viewpoint rather than from an interest in economic growth of the small-business community.

In this context, the Small Business Administration supplies financing to small business but functions as a distress organization to which small business turns after finding it impossibe to obtain loans elsewhere.[34] In addition to its limited ability to make loans, the SBA does not hold out any promise for development. While it has helped some 40,000 small businesses over the past 4 years, this help has been in the form of loans that commercial banks have refused. This differs from an organization established to function as an investment bank for small business, a bank which would ultimately indicate whether or not a field for private investment banking serving small business exclusively could develop.

A review of financing facilities available to small business leads to the conclusion that they are inadequate. Inadequacy cannot be proven in precise statistical terms. The nature of the problem does not allow for precision in measurement. Our conclusion is not based solely on such statistical data as available; it is also inferred from the information available from interviews and congressional hearings, it is also based on a belief in what could and should be accomplished.

If we desire a dynamic small-business community as a social, political, and economic goal, its achievement under present conditions entails taking positive steps to provide small business with the financing facilities to keep abreast of current technology and competition. Many of the innovations in lending practices to small business have come only through the leadership of Government and following direct lending programs by Government agencies. Perhaps it is necessary for Government to lead and experiment in a field where "other peoples' money" is at stake. Small-business financing is such a field.

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[34] See study 12 (Arlt), p. 253.

5. ADEQUACY OF SMALL BUSINESS FINANCING: ANOTHER VIEW[1]

INTRODUCTION

The purpose of this paper is to evaluate the literature on the adequacy of financing for small business firms since World War II. Such an evaluation includes development of criteria of adequacy, consideration of the types of data by which adequacy may be measured, reviewing the extent to which the literature has generated, examined, and properly interpreted such data, and indicating the desirability and feasibility of further investigation.

Adequacy of financing can be judged only with regard to specified objectives. Many objectives for small business financing are possible and many are indeed advocated. These range from the goal that each person of "good character" should have access to capital to start a business if he so desires, to the goal of "developing unity and keeping the family together," to the more limited goal that small business should be healthy and the even more limited goal that small business should have a fair share of available funds.[2] Financing which may be adequate in the light of one objective may be inadequate with respect to other objectives.

This paper will be concerned with adequacy of financing in terms of two goals or objectives. The first is a broad socioeconomic objective—the economic health and ability to grow of small business. The second is a more limited objective—a fair and equitable distribution of the available supply of capital funds.

Available literature on small business financing is deficient in at least two major respects. There are no comprehensive studies of the full postwar period, and the analyses that are available have tended to miss many of the more important trends in small business financing by narrow concern with individual types of capital funds. In attempting to evaluate the literature, it has been necessary to introduce data not commonly utilized in the literature of small business.

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[2] U. S. Congress, Senate, Committee on Banking and Currency, Credit Needs of Small Business, hearings, 85th Cong., 1st sess. (June 1957), pp. 66, 68. Cited hereafter as Credit Needs of Small Business. U. S. Congress, House, Select Committee on Small Business, Problems of Small Business Financing, hearings 85th Cong., 1st sess. (November 1957), pp. 86, 320. Cited hereafter as Problems of Small Business Financing.

ECONOMIC HEALTH AND ABILITY TO GROW

The literature of the economic health and ability to grow of small business firms has been concerned with the following main issues:

(1) Declining profits and earnings.

(2) Insufficient savings to start new firms.

(3) Inability to obtain loan or equity funds to initiate or expand small businesses.

(4) Inability to save out of income to expand existing firms because of high tax rates.

Inadequate financing facilities have been claimed as an important if not the chief contributor to the first three of these developments and a major supplementary factor in the case of the fourth. Each of these issues will be investigated in turn to ascertain the magnitude of the problem and the possible influence of inadequate financing.

There is no single definition of small business that is appropriate to all problems. Firms with assets of less than $1 million will be the standard definition of a small business throughout the paper unless it is stated otherwise in a specific context. Such a standard definition has many expository virtues.

Earnings

The income or earning rate of small business firms is the basic indicator of their health and ability to grow. Income is the chief determinant of the value of the business. It also affects the ability of the firm to generate funds for reinvestment, as well as to attract external funds in the form of bank or other credit or equities. Income is, however, one of the most difficult items to measure accurately.

There is considerable controversy as to the level and direction of small business earnings. Part of the problem is the scarcity of representative statistical data bearing on this point. A second difficulty is that most of the earnings data available suffer from distortion due to tax avoidance decisions.

In the case of unincorporated businesses, especially small ones, there has been a tendency substantially to underreport income and overstate deductions. In 1948, an audit of tax returns by the Bureau of Internal Revenue indicated that individual returns of less than $25,000 with business or professional income had understated income tax liabilities by an average of 25.7 percent. The relative understatement declined to 9.2 percent for similar returns between $25,000 and $100,000 and to 3.2 percent for returns of $100,000 and over.[3]

Understatement of tax, and income, by corporations is also found by audit. Audit of 1948 returns provided the basis for additional taxes of $170 million on approximately $502 million undisclosed profits, according to Commerce Department estimates.[4] This works out to a marginal tax rate of 34 percent suggesting that most of the deficiency was found among smaller corporations. In 1954, the latest year for which such audit data are available, additional income

[3] Marius Farioletti, Some Results From the First Year's Audit Control Program of the Bureau of Internal Revenue, National Tax Journal, vol. 5, No. 1, March 1952, p. 77.

[4] U. S. Department of Commerce, National Income, 1954, p. 214. Cited hereafter as National Income, 1954.

taxes of $703 million were required on unreported corporate profits estimated at $1,350 million.[5] The sharp increase in volume of understated income and even faster rise in extra taxes involved indicate that this type of bias in income reporting involved larger corporations in 1954. In 1948, the added corporate taxes resulting from audit amounted to 1.4 percent of aggregate corporate income taxes; in 1954 these additional taxes amounted to 4.2 percent of the comparable aggregate.

These substantial understatements in reported business income with the bias decreasing with size of firm present obvious difficulties in attempting to analyze levels and trends in business income.

Another difficulty in attempting to measure small-business earnings is the frequent practice, in the case of small corporations, of handling salaries of officers and other expenses in such way as to minimize total income taxes for the corporation and its officers in particular when these are the main stareholders. This may lead to reduction of the firm's stated earnings.

In 1957, for example, after analysis of Statistics of Income data, the Small Business Administration had this to say about relative changes in earnings of small and large corporations from 1947 to 1953:

> Comparisons of rates of return on net worth, before or after taxes of large and small corporations are likely to be misleading since, in a small corporation owned and managed by the same persons, the dividing line between dividends and compensation of officers is less clearly drawn. Payments to officers as compensation may reflect, in part, a return on investment. The decision as to how payment is to be made, whether as compensation or dividends, may be based largely on tax considerations. In relation to the return on investment, the compensation of officers is a much larger factor for small companies than for large ones. Therefore, it is important to take particular account of it in appraising the profitability of small concerns. A study made on the basis of data through 1953 shows that when compensation of officers is added to the amount of earnings, no appreciable decline in rate of return on net worth is observable between 1947 and 1953.[6]

To underscore the significance of the finding that there was no appreciable decline in return on net worth of small mnufacturing corporations between 1947 and 1953, it should be noted that in 1947 earnings after taxes averaged 16.3 percent before adding back officers, compensation and without making any adjustment for underreporting of income. During this same period, larger manufacturing corporations had a decline in return on net worth after taxes from 15.5 percent in 1947 to 10.8 percent in 1953, also without allowance for officers' compensation or underreporting.

Comparison of profit ratios since 1953 is awkward because there is no basis for judging if any further shift has occurred in the crucial item of officers' compensation.

For what it is worth, the rate of earnings after taxes on net worth of small manufacturing corporations during the first 9 months of 1957 compares favorably with the 1953 rate, 9.4 to 7.1 percent, before allowance for officers' compensation or underreporting.[7] If officers' compensation in 1957 were at a level equivalent to that of 1947, small

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[5] Survey of Current Business, July 1957, p. 23.
[6] U. S. Small Business Administration, 7th Semiannual Report, 1957, p. 18.
[7] Profit ratios obtained from U. S. Federal Trade Commission-Securities and Exchange Commission, Quarterly Financial Reports for Manufacturing Corporations.

manufacturing corporations as a group would apparently have earned at least 16 percent on net worth after taxes based on reported profits plus probably several more percentage points accruing from understated earnings.[8]

Maintenance of large earnings in relation to net worth was fostered by a very rapid increase in use of credit by small businesses, as is discussed in the section on debt.

It is important to note that small manufacturing firms did have a high rate of earnings after taxes in the postwar period, possibly a higher rate on net worth than that of large manufacturing firms. These earnings could be retained by the smaller firms, and used as a basis for attracting additional loan or equity capital or could be paid out to officers in the form of compensation or to stockholders in the form of dividends or reacquired stock. A large portion of earnings of smaller corporations was used to increase compensation of officers according to Statistics of Income data. Other sources suggest that reacquisition of blocks of own stock by small companies was also frequent.

Another guide to change in income levels of small businesses is furnished by the Federal Reserve Board's Surveys of Consumer Finances. These surveys have been conducted annually with a small probability sample of the spending units in the population, including spending units headed by self-employed nonfarm businessmen. In 1951, the first year for which the self-employed business group was tabulated separately, the median income including any nonbusiness income was $4,180. Subsequent income increases brought the median level up to $7,500 in 1956—a gain of 80 percent in 5 years. By way of comparison, the median income of all spending units in the population rose from $3,200 in 1951 to $4,250 in 1956, an increase of 33 percent (table 1).

These survey findings refer to businesmen in all nonfarm industries, with the great majority in the small business category. The data suggests that the incomes of small businessmen have risen fairly steadily during recent years and probably at a faster rate than that of the whole population. Undoubtedly, there are variations from this upward shift by product line, or locality, and individual circumstances but these always exist. It can be expected, however, that the current recession will reverse this upward shift for small businesses as it will tend to reduce the earnings of large firms.

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[8] The Department of Commerce considers that data for small corporations provide a fairly satisfactory index to the movement of noncorporate income in the same industry although the basis for generalization is still limited. "Industry-by-industry compilations of profit ratios (adjusted to include corporate officer compensation) for corporations in the 2 or 3 smallest asset-size classes showed the same pattern of decline as exhibited by the noncorporate ratios (between 1945 and 1947)." National Income, 1954, p. 81. A complicating factor in analysis of data for early postwar years with later years is a tendency to shift legal form of organization from noncorporate to corporate status with the ending of the corporate excess-profits tax. Relatively few firms were involved but the effect on sales and income was appreciable because the shift was made chiefly by large firms—partnerships in manufacturing, retail trade, wholesale trade, and contract construction.

TABLE 1.—*Average income of nonfarm self-employed businessmen spending units, 1951–56* [1]

Year	All spending units		Self-employed businessmen	
	Median income	Mean income	Median income	Mean income
1951	$3,200	$3,820	$4,180	$5,830
1952	3,420	4,070	4,730	7,010
1953	3,780	4,570	5,000	8,830
1954	3,700	4,420	5,710	8,300
1955	3,960	4,650	6,000	8,130
1956	4,250	5,140	7,500	10,730

[1] Spending units headed by nonfarm self-employed businessmen, including owners of closely held corporations, unincorporated businesses, and self-employed artisans. Income includes any nonbusiness income earned by members of the spending unit.

Source: Federal Reserve Surveys of Consumer Finances.

Saving and investment

There are other difficult questions in considering the ability of these firms to finance expansion. In earlier decades, retained earnings were the chief source of funds for business expansion. Currently the position is widely held that income taxes are so high that insufficient funds are left to small businesses to permit expansion.[9]

No conclusive answer seems possible at this time. There is information, however, that can reduce the area of uncertainty. The material previously presented on the earnings after taxes of small manufacturing corporations is one type of information. Studies of family saving and net worth also provide a basis for judging the volume of saving of small-business men and what they do with these funds.

On two occasions the surveys of consumer finances have obtained information on many of the assets and liabilities of individual spending units. These were in early 1950 and in early 1953.

In both years it was found that aggregate investment in own businesses constituted somewhat less than half of the total of included assets of nonfarm businessmen.[10] Major additional assets were owner-occupied homes, other real estate, liquid assets, and stock holdings. Debt—personal and mortgage—was relatively low for businessmen, amounting to only 6 percent of their total assets compared with 12 percent for the whole population. The value of business interest accounted for half or less of total assets of 61 percent of businessmen. Among self-employed businessmen with a business interest valued at $25,000 or more, the business interest accounted for less than half of assets in 27 percent of the cases and less than four-fifths of total assets in 77 percent of the cases (table 2).

[9] For typical statement, see Credit Needs of Small Business, pp. 66–67.

[10] Assets included are: Value of interest in an unincorporated business or privately held corporation; owner-occupied homes; other real estate, including commercial and rental property, summer homes and farms; automobiles; and common or preferred stock in corporations open to investment by the general public. Major assets not included are: Insurance; currency; trust funds; annuities; bonds of corporations, and of State, local, and foreign governments; household possessions such as furniture; and jewelry and paintings.

TABLE 2.—*Distribution of self-employed businessmen by value of business interest as a percentage of total assets*

[Percentage distribution of spending units within value of business interest groups]

Ratio of value of business interest to total assets (percent)	Value of business interest			
	Under $1,000	$1,000–$4,999	$5,000–$24,999	$25,000 and over
1 to 19	79	41	7	1
20 to 29	1	27	14	6
30 to 39	10	13	12	4
40 to 49	2	2	20	16
50 to 59	(1)	3	21	18
60 to 69	8	3	11	19
70 to 79	(1)	3	3	13
80 to 89	(1)	3	7	15
90 to 99	(1)	1	4	8
100	(1)	4	(1)	(1)
All cases	100	100	100	100

[1] No cases reported or less than one-half of one percent.

Source: 1950 and 1953 Federal Reserve Surveys of Consumer Finances, combined, a total of 442 cases.

That these other nonbusiness assets are used to support the business operation when necessary is indicated by a special study of the Prudential Insurance Co. This survey for the period 1953–56 showed—

> * * * that they made about the same volume of business loans that took the route of the residential loan as they made in the form of strictly business loans.[11]

This pattern suggest that many businessmen have no need for all of their funds to expand their businesses but can invest substantial portions elsewhere, such as in real estate or in stock holdings. This is consistent with the finding of a Department of Commerce survey in 1954 that 57 percent of established business firms desired no outside funds. If need develops, many businessmen have considerable resources to call on. Probably young businessmen and owners of newly established firms are in a less comfortable position with regard to accumulated funds.

How rapidly can businessmen expand their saving? Some light is shed on this point by survey data on the rate of saving out of income by business people. Such information was obtained by several nationwide surveys of consumer finances in the postwar period and by a 1950 Bureau of Labor Statistics study of the urban population. The survey saving statistics are very crude and subject to considerable margins of error. However, in all postwar surveys, the differences in savings between business and nonbusiness groups are so large and consistent as to direction that they suggest strongly a real difference in saving behavior.

[11] Testimony of Mr. James J. O'Leary, director, Investment Research, Life Insurance Association of America, Problems of Small Business Financing, pt. I.

Four separate surveys conducted in 1948, 1949, and 1950 indicated that, as a group, owners of unincorporated nonfarm businesses saved from 3 to 4 times as large a percentage of their total income as did all recipients of personal income. The greater rate of saving appeared to result both from a higher average level of income and a tendency to save a larger percentage of high income than other groups. At disposable income levels of $10,000 and over, units headed by businessmen saved an average of more than one-third of income. Business men at all income levels averaged a saving rate of at least 15 percent of income in these surveys (table 3).

These data provide no direct answer to the question on the extent of shortages of personal funds to expand existing businesses. They suggest that a large percentage of small businessmen have all the equity funds they require plus considerable resources outside the business which can be tapped if desired. As to current ability to accumulate resources, businessmen apparently did save at a very high rate in the 1948–50 period if their operations were sufficient successful to provide a disposable income of $10,000 or more. If incomes were lower, the rate of saving apparently declined rapidly, making it considerably more difficult to expand by plowing back earnings.

Investment in new business

In the 11 years 1946–56, there was a net expansion of 1,045,000 firms in the business population (table 4). A crude but probably conservative estimate is that these additional firms involved initial investments totaling approximately $10 billion of which about $6 billion was in equity form (see pp. 143–147 for details). Gross investment in the 4,310,000 new firms established in this period was approximately four times as large. This huge flow of investment funds to small businesses went almost wholly through informal channels.

TABLE 3.—*Income and savings of unincorporated businesses and of all urban (or nonfarm) units*

Survey, type of unit, and income	Distribution of units (percent)	Aggregate income		Aggregate saving		Average income (dollars)	Saving-income ratio (percent)
		Billion dollars	Percent	Billion dollars	Percent		
A. BLS, Wharton (1950):							
1. All urban units, with income:							
Under $3,000	40	21,706	17	−3,385	−60	1,742	−15.6
$3,000 to $4,999	33	41,465	32	225	4	3,934	.5
$5,000 to $7,499	17	32,340	25	1,698	30	5,976	5.3
$7,500 to $9,999	6	14,842	11	1,836	33	[1] 8,423	[2] 12.4
$10,000 and over	4	19,989	15	5,263	93	[1] 15,877	[2] 26.3
Total	100	130,342	100	5,637	100	4,147	4.3
2. Unincorporated businessmen, with income:							
Under $3,000	31	1,384	8	−842	−30	1,571	−60.8
$3,000 to $4,999	23	2,670	14	−196	−7	4,033	−7.3
$5,000 to $7,499	20	3,556	19	352	13	6,110	9.9
$7,500 to $9,999	12	3,030	17	528	19	8,417	17.4
$10,000 and over	14	7,604	42	2,953	105	18,546	38.8
Total	100	18,244	100	2,795	100	6,302	15.3
B. Klein-Margolis Survey of Consumer Finances (1948–50):							
1. All nonfarm units, with income:							
Under $3,000	52	41,296	27	−2,455	−21	1,728	−5.9
$3,000 to $4,999	33	57,642	38	3,897	33	3,839	6.8
$5,000 to $7,499	10	26,918	18	3,151	27	5,886	11.7
$7,500 and over	5	26,918	17	7,206	61	12,268	27.5
Total	100	152,098	100	11,799	100	3,334	7.8
2. Unincorporated businessmen, with income:							
Under $3,000	37	1,857	11	−1,057	−25	1,379	−56.9
$3,000 to $4,999	30	4,226	24	1,039	25	3,875	24.6
$5,000 to $7,499	18	3,882	22	1,046	25	5,981	26.9
$7,500 to $9,999	7	2,222	13	1,035	25	8,578	46.6
$10,000 and over	8	5,205	30	2,112	50	17,180	40.6
Total	100	17,392	100	4,175	100	4,768	24.0

[1] Average income for all units with incomes over $7,500 is $11,530.
[2] Ratio for all units with incomes over $7,500 is 20.4 percent.

Source: Irwin Friend and I. B. Kravis, Entrepreneurial Income, Saving, and Investment, American Economic Review, June 1957, p. 299.

Net expansion of the business population slowed as the war-caused shortfall in new firm formation was made good. Formation of new businesses, however, continued at a high rate into 1957 with 211,000 new entries in the first 6 months of the year.

TABLE 4.—*Number of firms in operation, selected dates*

[Thousands]

Year (annual average or date)	All industries	Year (annual average or date)	All industries
1929	3,029	Dec. 31, 1945	3,242
1933	2,782	Dec. 31, 1950	4,067
1939	3,222	Dec. 31, 1956	4,287
1943	2,905	June 30, 1957	4,322

Source: Survey of Current Business, January 1954, p. 12; April 1955, p. 15; January 1958, p. 6.

Failures and reasons for failure

The number and rate of business failures has tended to increase from the very low figures prevailing at the end of the war. A partial explanation is the more rigorous competition that developed as the business population expanded.

In recent months, the number of failures has increased as economic activity has turned down. Relative to the number of firms, failures are still considerably below the 1930's and the prosperous 1920's.

In September 1957, the failure rate, seasonally adjusted, reached a postwar high of 58.7 per 10,000 concerns listed in the Dunn & Bradstreet Reference Book. It dropped somewhat to a 51.5 rate in October. By comparison, the failure rate was 70 for all of 1939, 83 for 1930–39, and 99 for 1920–29.[12]

If the operations of small businesses were significantly affected by unavailability of capital funds except at high cost, it is reasonable to expect this factor to appear as an important contributor to business failure. Numerous and widely accepted studies of business failures have almost always concluded that lack of capital and credit were rarely the causes of failure. The blame has usually been placed largely on personal factors—incompetence, inexperience, lack of judgment, family problems, poor health, etc.[13]

Such personal causes of failure exist and are quite important. Yet there appears reason to suspect that they overstate the personal and minimize the importance of insufficient financial resources.

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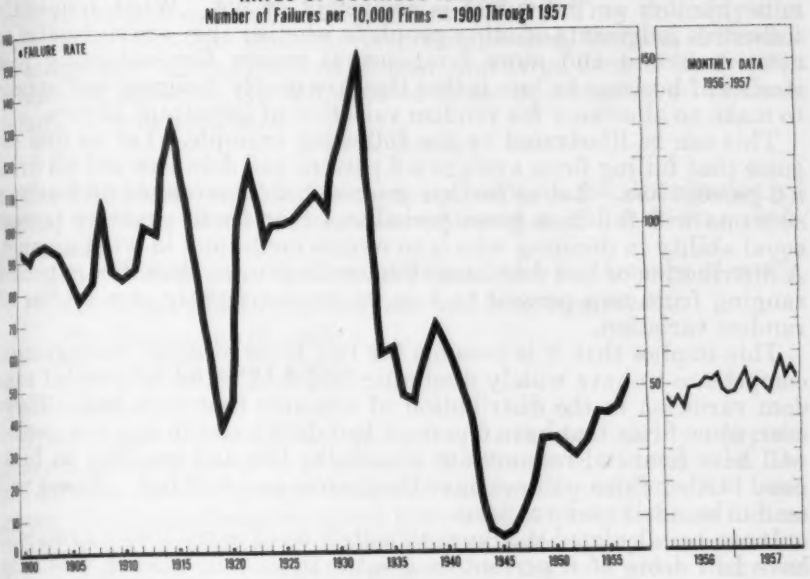
[12] Survey of Current Business, January 1958, p. S–5, and National Industrial Conference Board, The Economic Almanac, 1956, p. 302. See also study 9 (Markham).

[13] For a digest of such studies, see Edwin B. George, Can Small Businesses Get the Capital They Need? Dun's Review, October 1952, p. 117.

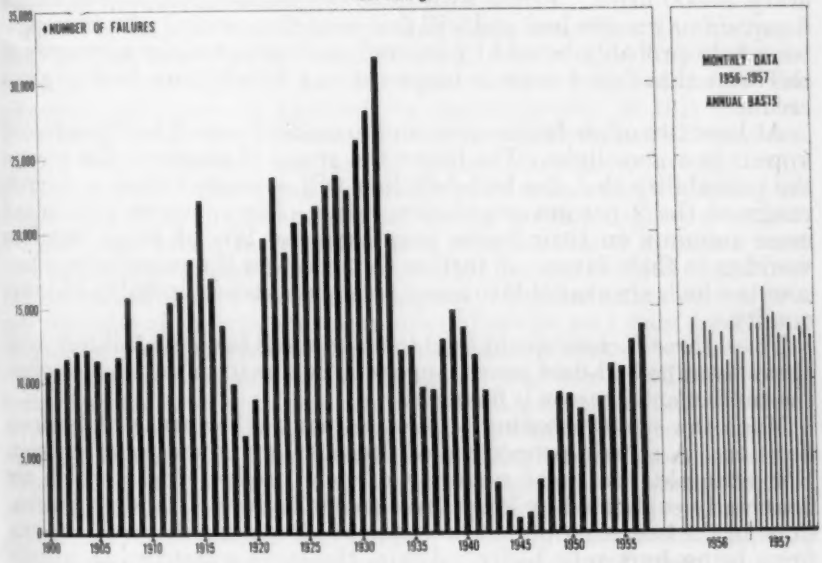
RATES OF BUSINESS FAILURES

Number of Failures per 10,000 Firms – 1900 Through 1957



NUMBER OF BUSINESS FAILURES

1900 Through 1957



SOURCE: DUN & BRADSTREET, INC.

One ground for suspicion is that it is extremely difficult to determine whether an individual is competent or not. What frequently influences judgments of other people is whether they are successful or not. A second and more fundamental reason for suspecting past studies of business failure is that they are poorly designed and appear to make no allowance for random variation of important factors.

This can be illustrated by the following example. Let us first assume that failing firms average a 6 percent bad debt loss and all firms a 2 percent loss. Let us further assume that 2 percent of all business accounts will fail in a given period and that credit grantors possess equal ability in deciding who is to receive credit and in what amount. A distribution of bad debt losses per credit grantor should be expected ranging from zero percent to 8 or 10 percent strictly as a matter of random variation.

This implies that it is possible for two firms of equal management competence to have widely dissimilar bad-debt ratios because of random variation in the distribution of accounts that turn bad. However, some firms that have 6 percent bad-debt losses in any one period will have financial resources to absorb the loss and continue in business. Other firms will not have the sources and will fail. These will tend to be small-business firms.

It can be calculated that approximately 60 of every 10,000 firms will have bad debts of 6 percent or greater strictly by chance when the average for all firms of equal competence is 2 percent.[14] It is a coincidence that the current annual rate of business failures is about 50 for every 10,000 firms. Firms with little capital are least able to bear a 6 percent or greater loss and will fail most frequently. An investigator would probably be told by injured creditors that the managers of the firms that failed were incompetent and didn't know how to grant credit.

At least two other factors also tend to make the small business record appear in a poor light. The larger the group of accounts, the greater the probability that the bad-debt loss will average within a narrow range of the 2 percent population value. Big concerns with many more accounts on their books thus have the law of large numbers working in their favor. A further factor is that the population of accounts which are available to many small concerns is probably of lower quality.

These three factors would tend to make small business failures, with above average bad-debt losses, appear to be due to incompetence when the fundamental reason is financial.

Much the same reasoning applies to many other areas of business decision. A certain proportion of decisions are bound to be in error. For example, the great majority of new product ideas which are financially supported by large firms end in failure. Random fluctuations in the bunching of bad decisions of all types will result in some firms being hurt very badly. Again, the large concerns can usually absorb the losses while the small ones are less able to do so. Yet, investigators will find that mistakes in judgment were made by failing firms with above-average frequency and will tend to draw the wrong inferences.

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[14] An approximately normal distribution is assumed with each firm having about 100 accounts.

These remarks are not intended to suggest that personal factors are an unimportant cause of small business failure. They do imply that their importance has probably been exaggerated, that the difference in competence of management of small and large firms is likely to be overstated, and that the influence of financial resources on business failure is underestimated.

LOAN FUNDS

The literature on how fair and equitable is the distribution of capital funds to small businesses has focused on the following problem areas:

(1) Reduction in the availability, means, and sources of credit.
(2) Unavailability of medium- and long-term credit.
(3) Excess cost of credit.
(4) Lack of equity funds.

Availability of credit

A first approach to the determination of the availability of credit to small business would be to measure the change in its total debt. At one extreme, no change or a decline in outstanding debt of small businesses when large firms expanded their debt is likely to be an indication of lack of availability. At the other extreme, a very large increase in outstanding debt of small businesses or a relatively greater increase than for large businesses would provide a tentative indication of adequacy of availability of credit, although this would imply nothing about term or cost of credit.

There is little in the literature that deals broadly with this question.[15] Most attention has been devoted to individual forms of debt or to debt experience of an individual company or industry. The piecemeal approach is particularly unsatisfactory in this case because there are so many sources of credit available to small businesses. Banks, trade suppliers, commercial finance companies, factors, insurance companies, officers and stockholders, friends, relatives, and other sources are all available and are utilized in varying degrees overtime. Further, new credit instruments have been developed in recent years such as equipment and accounts receivable financing which are of particular importance to the small company. Concentration on one or a few traditional sources and techniques of credit may miss significant developments in the growth of credit to small business.

Data are not available on the change in total debt of all small businesses but an excellent indicator is the net growth in debt of unincorporated business firms, a group which includes the great majority of small businesses. The Securities and Exchange Commission and Department of Commerce jointly prepare estimates of change in debt of nonfarm unincorporated businesses to banks and insurance companies and to all other corporations.[16] The figures are obtained as a residual and therefore have a considerable margin of error.

These estimates show that in the 11 years 1946–56 noncorporate firms increased their outstanding debt to corporations by about $34 billion (table 5). The magnitude of this increase may be indicated by the level of such debt before the war and at the end of the war.

[15] See, however, study 3 (Moore, Atkinson & Kilberg), p. 40.
[16] National Income, 1954, p. 167, and Survey of Current Business, July 1957, p. 12.

In 1939, the net debt outstanding of unincorporated business firms to corporations was a little more than $5 billion:[17] at the end of 1945, the total was virtually the same as in 1939, just over $5 billion. In the subsequent 11 years, the increase of $34 billion in total debt to corporations represented a rise of more than 600 percent. Put another way, the average debt to corporations of unincorporated concerns rose from $1,800 in both December 1939 and December 1945 to more than $10,000 at the end of 1956 (table 6).

These data, even after allowance for the rise in the price level, tend not to support the widespread belief that "* * * means and sources of credit are becoming more limited to (small business) all the time."[18]

Expansion of unincorporated business debt took place in all except one of the postwar years. The borrowing pattern shifted from year to year as circumstances and relative advantage required. Thus, in 1956, a year of credit restraint, unincorporated firms had a smaller increase in debt to banks and insurance companies than in 1955, but a much larger one to "other" corporations. In spite of the restraint, unincorporated businesses added more than $6 billion to their outstanding debt in 1956 compared with $4 billion in 1955. This large increment had been exceeded in the past only by the $7 billion rise in 1950.

TABLE 5.—*Change in debt of nonfarm unincorporated businesses, 1946–56*

[Billions of dollars]

Year	Change in debt to—		
	Banks and insurance companies	Other corporations (net payables)	All corporations
1946	1.91	1.10	3.01
1947	2.06	1.24	3.30
1948	.51	1.82	2.33
1949	2.02	−.84	1.18
1950	4.57	2.61	7.18
1951	.66	.81	1.47
1952	.52	2.33	2.85
1953	.54	−.84	−.30
1954	2.74	−.12	2.62
1955	3.82	.26	4.08
1956	2.80	3.37	6.17
Total 1946–56	22.15	11.74	33.89

Sources: Survey of Current Business, July 1957, table 6, p. 12 and U. S. Department of Commerce, National Income, 1954, table 6, p. 167.

The flexibility provided small business by the variety of its credit sources gives it a capacity to minimize the effect of restriction on any of its individual borrowing sources. While this may be true for the group as a whole, there are bound to be many individual firms with limited borrowing opportunities or insufficient knowledge to make full use of available sources. Reports of the Small Business Administration indicate that it is not infrequent for small firms to be un-

[17] Irwin Friend and Vito Natrella, Individuals' Saving: Volume and Composition (Wiley, 1954), tables 6 and 7, pp. 37 and 39.
[18] Credit Needs of Small Business, p. 62.

aware of available credit sources and instruments which could satisfy their needs.[19]

TABLE 6.—*Average debt of nonfarm unincorporated businesses, selected dates*

End of year	Number of firms (thousands)	Total debt to corporations (million dollars)	Average debt per firm (dollars)
1939	2,900	5,320	1,800
1945	2,900	5,200	1,800
1956	3,700	39,090	10,600

NOTE.—Debt data from Irwin Friend and Vito Natrella, Individuals' Saving: Volume and Composition (Wiley, 1954), pp. 36 and 38, for 1939 and 1945 figures of outstanding debt. Change in debt 1946–56 added to outstanding debt at end of 1945. See table 5 for sources of change in debt. Figure for 1956 may be slightly overestimated because of conversion of unincorporated firms to corporate status. Number of firms from various issues of Survey of Current Business.

Additional data bearing on the availability of credit to small businesses may be found in the Federal Trade Commission-Securities and Exchange Commission financial series for manufacturing corporations. This series provides data on bank and nonbank borrowing by size class of borrower. Because of yearly reclassification of individual firms as their assets increase or decrease, and changes in sample and in reporting firms, the data by size class require cautious interpretation. However, if the data are analyzed in terms of changes in debt relative to equity, much of the variability is removed and, in addition, a significant economic measure results. Certain types of data in this series are available beginning in 1948.

At the end of 1948, small manufacturing corporations had a greater debt to equity ratio as a group than did all manufacturing corporations, 34 to 24 percent.[20] Subsequently, debt increased relative to equity for both small and all manufacturing corporations but the rise was much greater for the small firms. By September 30, 1957, debt amounted to 61 percent of equity for the smaller group and to 36 percent for all manufacturing corporations (see table 7).

Small manufacturing corporations had a greater percentage increase in amount of debt as well as a faster increase in debt relative to equity. Betwen the fourth quarter of 1948 and the third quarter of 1957, small manufacturing corporations increased their total outstanding debt by 195 percent (from $1.98 billion to $5.87 billion) while outstanding debt of all manufacturing corporations rose about 145 percent.

The more rapid rise of borrowing by the small firms did not appear to be limited to the early postwar years but seemed to continue in 1956 and 1957.

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[19] U. S. Small Business Administration, 1st Semiannual Report, 1954, pp. 61–63.

[20] Debt is defined as short-term bank loans, other notes and accounts payable, and bank and other long-term debt. Equity is defined as the sum of capital stock and surplus, earned surplus and reserves, and reserves not reflected elsewhere.

TABLE 7.—*Debt ratios for small and all manufacturing corporations, selected dates* [1]

[Ratio of debt to equity, percent [2]]

Type of debt	Dec. 31, 1948		Dec. 31, 1954		Dec. 31, 1955		Dec. 31, 1956		Sept. 30, 1957	
	Small corporations	All corporations	Small corporations	All corporations	Small corporations	All corporations	Small corporations	All corporations	Small corporations	All corporations
Current installment on long-term debt included with short-term debt:										
Short term:										
Bank	6.4	4.0	7.4	4.2	7.8	4.2	9.8	5.4	10.4	5.8
Other	18.4	10.8	20.8	12.6	31.1	13.5	33.9	13.9	33.1	12.4
Total	24.9	14.8	37.2	16.8	38.9	17.7	43.7	19.3	43.5	18.2
Long term:										
Bank	2.1	4.2	2.3	2.2	2.5	2.3	3.2	3.1	3.3	2.9
Other	6.7	9.3	10.4	14.2	11.9	14.2	13.3	14.9	14.2	15.2
Total	8.9	13.5	12.7	16.4	14.4	16.5	16.5	18.0	17.5	18.1
Current installment on long-term debt included with long-term debt:										
Short term:										
Bank	[3]	[3]	6.6	3.8	7.1	3.9	8.7	5.0	9.3	5.4
Other	[3]	[3]	27.7	11.9	29.2	12.9	32.2	13.3	31.2	11.8
Total	[3]	[3]	34.4	15.7	36.3	16.8	40.9	18.3	40.6	17.1
Long term:										
Bank	[3]	[3]	2.9	2.6	3.2	2.6	4.2	3.4	4.4	3.3
Other	[3]	[3]	12.7	14.8	13.7	14.8	14.9	15.6	16.0	15.9
Total	[3]	[3]	15.5	17.4	16.9	17.4	19.1	19.0	20.5	19.2
Combined long- and short-term debt:										
Bank	8.5	8.2	9.7	6.4	10.3	6.5	13.0	8.5	13.7	8.7
Other	25.1	20.1	40.2	26.7	43.0	27.7	47.2	28.8	47.3	27.6
Total	33.6	28.3	49.9	33.1	53.3	34.2	60.2	36.3	61.0	36.3

[1] Small manufacturing corporations are defined as firms with assets of less than $1,000,000.
[2] Equity is defined as the sum of capital stock and surplus, earned surplus and reserves, and reserves not reflected elsewhere. Short-term debt is defined as (*a*) short-term bank loans and (*b*) other notes and accounts payable. Long-term debt is defined as (*a*) long-term bank debt and (*b*) other long-term debt.
[3] Not available.

Source: U. S. Federal Trade Commission-Securities and Exchange Commission, *Quarterly Financial Reports for Manufacturing Corporations.*

The $34 billion increase in credit to unincorporated businesses and the more rapid expansion of debt by small than by all manufacturing corporations appear to furnish an affirmative though general answer to the question of the availability of credit to small business as a group.

Despite a general availability, there might yet be a problem of distribution, of areas with unsatisfied demand. Some information on this point is available from a Commerce Department survey covering small- and medium-size businesses.[21] A sample of firms was requested to report their gross demand for funds in the 12-month period ending June 1954 and the extent to which demands were not satisfied. The definition of unsatisfied demand has a member of peculiarities as noted in the section on equity demand, page 44. Also, the period is unfortunate in several respects because it includes a downward movement in the economy and its reversal. However, the period does have the virtue that credit did decline in response to a downturn in the

[21] Loughlin F. McHugh and Jack N. Ciaccio, External Financing of Small and Medium-Size Businesses, Survey of Current Business, October 1955.

economy and possibly increased caution by lenders. It provides some insight, therefore, into the severity of a credit pinch on small business in a mild recession.

The survey found that 56 percent of all firms had no desire for outside funds with the proportion somewhat lower for firms newly formed in 1951–53. Approximately half of all firms desiring outside funds obtained the full amount desired, making about 80 percent fully satisfied, as defined in the survey. Of the remainder, two-thirds obtained some funds and the balance, about 7 percent, secured none. The proportion of very small firms (one-third employees) that were fully satisfied as to funds was equal to the overall average of 80 percent. Contributing to this ratio was a less than average proportion of very small firms that desired outside funds and a greater than average inability to satisfy the desire of those reporting it.

The report shows that virtually all short-term demand of small- and medium-size firms was met, but the demand for new long-term commitments was less well met. For all firms, approximately 90 percent of the unmet loan demand was for maturities of 1 year or longer and half was for 3 years or longer. "For the most part, the unmet demand was for permanent capital either to fill out undercapitalized structures or for major expansions. Hence the typical unfilled amount was generally of fairly sizable proportions relative to the existing scale of operations." [22] Approximately half of longer term loan demand was met.

Nothing is said about the supply or demand conditions respecting the unsatisfied demand which would make it economically meaningful. However, taken at face value, the survey indicates that in this mild recession the working capital needs of small businesses were virtually all met but that there was difficulty in obtaining relatively large sums in order to flush up capital structure or begin a major expansion. It would be useful to know the extent to which this phenomenon was common to large and small firms in the midst of a recession.

The quality of at least part of unsatisfied demand is indicated in the Commerce survey by the finding that—

> A number of firms indicated, for example, that while they wanted the money, they felt their then existing circumstances warranted a refusal by the lender.[23]

Similarly in a 1955 mail survey of members of the National Association of Manufacturers, of the 8 percent of firms with 50 or fewer employees which said yes to "Have you asked the Government for financial assistance?" about 60 percent reported having been turned down. The most frequent reason for declining business loan applications by the Small Business Administration is "earning ability not demonstrated or assured for future."

Medium- and long-term debt

Another important aspect of the adequacy of small business financing is the term for which loans are available. Short-term credit is preferred for certain purposes because of flexibility and lower cost. But the shorter the period, the greater may be the risk to the borrower. Unexpected contingencies can arise which limit ability to repay in the short run. Long-term credit may also be desired for

[22] Survey of Current Business, October 1955, p. 18.
[23] Ibid., p. 17.

certain investments, such as plant and equipment which require an extended period before they pay for themselves. Long-term credit is frequently preferred by small concerns as a substitute for equity because semipermanent funds are made available without sharing of ownership with outsiders and the interest payments on these funds are tax deductible.

In the postwar period the volume of medium- and long-term credit has increased substantially and there is evidence that such credit has become increasingly available to small businesses.

In November 1946, member banks of the Federal Reserve System had $4.5 billions of business loans outstanding with an original maturity of more than 1 year (the so-called term loans). In October 1955, the total of term loans was $10.4 billion; a rise of about 150 percent. During this period, member bank term loans to businesses with assets of less than $250,000 increased from $739 million to $1,974 million, a gain of more than 160 percent.[24] The greater availability of term credit to small business is also evidenced by a sharp rise for this group in the proportion of term to total bank credit although there was no change in the proportions of term credit for all borrowers. In 1946, 22 percent of all business bank loans to small business were term loans; in 1955, the percentage had risen to 32.

Survey information is not yet available on the geographic distribution of term loans or on differences in term lending by size of bank which could assist in evaluating the adequacy of this type of business financing in 1955 throughout the country.

Nonbank sources also appear to have made long-term credit more readily available to small business in recent years and possibly to an even greater degree than banks if the experience of small manufacturing corporations is indicative. The FTC–SEC series for manufacturing corporations (already referred to on p. 137) provides data on this point beginning in 1948.

Between the fourth quarter of 1948 and the third quarter of 1957, outstanding long-term loans to small manufacturing corporations from nonbank sources rose from $397 million to $1,369 million, an increase of nearly 250 percent. By comparison, term loans by banks to these same firms went from $123 million to $315 million, an advance of about 150 percent. These figures exclude installment payments on long-term debt due within a year. Apparently, nonbank sources have provided considerably larger amounts of long-term funds to small manufacturing firms than have banks (no details are provided in the FTC–SEC series as to the identity of the nonbank lenders).

Shifting to a comparison of the relative availability of long-term credit by size of firm, expansion of long-term credit to small manufacturing firms by nonbank sources has been greater than to larger firms. By contrast with the near 250 percent rise for small firms, all manufacturing corporations increased their nonbank long-term debt by about 210 percent between the end of 1948 and the third quarter of 1957.

Possibly a more significant measure of the availability of long-term debt is its relation to the equity funds of the firm. As previously

[24] Incomparabilities of asset size limits over $250,000 do not permit direct comparison of the usual grouping of firms with assets of less than $1 million.

stated, long-term debt is semipermanent capital to the firm but without dilution of ownership.

At the end of 1948, long-term credit outstanding from bank and nonbank sources together amounted to 8.9 percent of the equity funds of small manufacturing corporations. Although equity funds for this class of firm were two-thirds larger in the third quarter of 1957, long-term debt had risen even more sharply and amounted to 17.5 percent of the larger equity. This rise closed the gap between small and large manufacturing corporations: In the third quarter of 1957, the long-term debt of all manufacturing corporations amounted to 18.1 percent of total equity funds, having risen from 13.5 percent at the end of 1948.

Thus, small manufacturing firms appear to have begun the postwar period with relatively less long-term debt than large firms but to have increased such debt at a faster rate both in absolute amount and relative to equity. This is true for both bank and nonbank long-term credit. For the latest period available in 1957, total long-term debt (including current installments) amounts to about one-fifth of equity funds for small as well as large manufacturing corporations.

A crude estimate of the average maturity of debt is possible by relating the installments due within a year to the total amount outstanding. For postwar years, the result will tend to underestimate the true period bu provides a useful minimum measure. For small manufacturing corporations, long-term debt to banks has averaged between 4 and 4.5 years in the 1954–57 period for which such data are available. Long-term debt to nonbank lenders has increased gradually in average length from about 6 to 8.5 years between 1954 and 1957. For all manufacturing corporations, the 1957 average for long-term bank debt was about 7.5 years and for nonbank debt about 25 years.

The implied longer terms for the larger corporations probably reflects their long-term objectives and the greater assurance of repayment on either a secured or unsecured basis. An interesting aspect of the computation is that the average term debt for the small corporation is as long as it is and is tending to increase in length in the fast growing sector of nonbank lending.

Cost of credit

To ascertain if small businesses are paying excessive prices for credit is very difficult. High interest charges are inconclusive taken by themselves. The cost of credit should reflect, among other factors, differences in risk, service, and administration. Small businesses will be charged a higher rate on each of these counts. The problem is the amount of the difference.[25] In theory, a smoothly functioning competitive capital market will eliminate excessive charges if they exist. In practice, restrictions on the flow of capital, institutional lags, outdated notions of risk, and imperfect competition among lenders may permit excessive charges to develop and continue.

There are no adequate studies of the overall cost to lenders of extending credit to small concerns of which I am aware. What can be said at this time is that the absolute and relative differences in cost of credit to small and large borrowers have apparently narrowed in recent years.

In 1946, the average rate on short-term bank business loans of less than $10,000 was 4.2 percent compared with 1.7 percent for loans of $200,000 and over. The absolute and relative difference narrowed in

[25] See study 3 (Moore, Atkinson, and Kilberg), p. 40.

each subsequent year, except 1954, of the postwar period. The process continued in 1957 and there is apparently less of a gap now between the rates charged by banks for small and large business loans (5.5 percent and 4.5 percent respectively) than at any previous point in the postwar period. (See table 8.) Allowance for minimum balance requirements would bring the effective interest rates even closer.

Minimum deposit balances are required of borrowers by many banks and the practice is far more frequent among large banks and among banks in the eastern part of the country, where stipulated rates are lower. A Federal Reserve survey of member bank in October 1955 found that 93 percent of banks in the $500 million deposit class required minimum balances of business borrowers while fewer than 5 percent of banks in the $20 million deposit class reported this requirement. It is fair to presume that minimum balance requirements for the really small concerns would be even lower than for the last deposit size shown in this survey. "Many banks indicated that such requirements are not feasible for small borrowers. This attitude may account for the limited use of such requirements at small banks whose customers are mostly small to medium size." [26] Larger banks not only required minium balances more frequently but tended to have higher minium requirements. The restriction on use of funds usually raises the effective rate of interest to the borrower. No precise estimate of the effective increase is possible but the practice would appear to bring the rate of interest charged large firms closer to that charged small firms.

TABLE 8.—*Bank rates on short-term business loans in selected cities*

[Averages of quarterly data, in percent]

Period	All loans	Size of loan (thousands of dollars)			
		1 to 10	100	200	200 and over
1946	2.1	4.2	3.1	2.2	1.7
1950	2.7	4.5	3.6	3.0	2.4
1954	3.6	5.0	4.3	3.9	3.4
1955	3.7	5.0	4.4	4.0	3.5
1956	4.2	5.2	4.8	4.4	4.0
1957	4.6	5.5	5.1	4.8	4.5

Source: Federal Reserve Bulletin, May 1955, p. 529, and January 1958, p. 49.

In the light of the greater risk of lending to small busineses and the relatively higher costs of investigation and administration of such loans, it does not appear that the current small difference in rates between large and small loans could include a significant amount of excessive charges to small businesses on short-term bank loans.

Comparable information on rates charged for term loans of small and large firms has not been published by the Federal Reserve. Available data suggest that some narrowing of the spread in interest rates between large and small loans has taken place with respect to term loans also but the evidence is not at all clear.

Special tabulations of insurance company loans to business and industry from 1953 to 1956 also indicate a reduction of the difference in the interest rate between large and small loans. (See table 9.) For example, business mortgage loans of less than $25,000 had

[26] Federal Reserve Bulletin, June 1956, p. 576.

an average interest rate in 1953 that was 59 basis points above the rates charged on loans of $1 million to $5 million, 5.11 and 4.52 percent, respectively. In 1956, the spread had declined to 42 basis points, 5.29 and 4.87 percent, respectively.[27] As with short-term bank loans, interest rates on large loans by insurance companies went up more sharply both in absolute and percentage terms.

Comparable declines in rates for other major forms of credit to small business are indicated, although data are fragmentary. In the case of accounts receivable financing, for example, "as more efficient operating techniques were introduced, more adequate risk experience developed, and competition grew, typical rates per annum generally have been reduced by one-half or more since the 1920's.[28]

TABLE 9.—*Mortgage loans of life-insurance companies to business and industry, by size of loan*

[Amounts in thousands of dollars; interest rates in percent]

Loan size class	1953 average		1956 average	
	Amount	Interest rate	Amount	Interest rate
Under 25	15	5.11	15	5.29
25 to 50	35	4.91	36	5.10
50 to 100	70	4.80	69	5.00
100 to 250	148	4.73	154	4.92
250 to 1,000	441	4.63	444	4.88
1,000 to 5,000	2,021	4.52	2,006	4.87
5,000 to 10,000	7,623	4.52	6,624	4.72
10,000 and over	40,000	4.45	15,913	4.68
All sizes	184	4.62	255	4.86

NOTE.—U. S. Congress. House. Select Committee on Small Business, Problems of Small Business Financing, hearings, 85th Cong., 1st sess. (November 1957), p. 161. Data were obtained from a special tabulation of authorized loans of 67 life-insurance companies whose combined assets accounted for 77 percent of the assets held by all life-insurance companies.

EQUITY FUNDS

Adequacy of the flow of external equity funds to small business has received considerable attention but the approach to this question has usually been of quite limited scope. Most analysis and comment has been restricted to insights provided by individual company experience or to examinatiton of data concerning relative size and cost of stock issues registered with the Securities and Exchange Commission, or to experience of a limited group of companies in some locality or specific industry.

Availability of funds

There has been practically no analysis in the literature I have examined of the entire external equity area, including the sphere of noncorporate enterprise. The lack of attention to equity investment in noncorporate business is understandable in view of the difficulty in obtaining reliable data in this area. To ignore it, however, is to miss a major portion of the flow of equity funds and a flow that goes predominantly to small business. In the 11 years, 1946–56, as has been indicated, there was a net expansion of 1,045,000 firms in the business population, while a total of 4,310,000 new businesses were started during this period.[29]

[27] Problems of Small Business Financing, pt. I, p. 161.
[28] Clyde W. Phelps, Accounts Receivable Financing as a Method of Business Finance (Commercial Credit Co., 1957), p. 41.
[29] Approximately 50,000 of these new firms were in regulated industries—transportation, communication, and other public utilities.

A crude estimate of the volume of equity funds invested in new concerns is possible on the basis of Department of Commerce surveys. One such survey found that the initial investment in trade firms organized in 1945 to 1947 averaged about $22,000 for wholesale and $9,500 for retail concerns. A second survey covering manufacturing firms newly established in the 1946–48 period, found initial investment to average about $12,000 per firm.[30] Both surveys estimated that equity funds accounted for 62 to 63 percent of the total initial investment.

The following estimate is probably conservative in assuming that equity funds averaged only 60 percent of initial investment and that initial investment amounted to only $9,500 per average firm in all industries. On this basis, the expansion of the business population by 1,045,000 units from 1946 to 1956 involved net initial investments totaling approximately $10 billion of which about $6 billion was in equity form.[31] Gross investment in the 4,310,000 new firms established in this period was approximately 4 times as large.

Inasmuch as the overwhelming majority of new firms are small business, it is evident that a very large total of equity funds has been channeled into small businesses in the postwar period.

Corporations, excluding banks and insurance companies, obtained a total of $22.8 billion from stock issues in the same 1946–56 period according to the Department of Commerce.[32] Of this total, over 60 percent or $14 billion was raised by corporations in the public utility and communication industries. Thus corporations in these Government-regulated and controlled industries obtained most of the so-called risk capital provided by the organized capital markets during the postwar period.

True risk capital was provided sparingly by the organized capital markets to corporations in all other, mainly nonregulated, industries—manufacturing, construction, trade, service, etc. In 11 postwar years, all corporations in these latter industries obtained a net total of nearly $9 billion of external equity funds from stock issues. Some part of this sum was capital raised by newly formed corporations and is also included in the estimated $6 billion of equity funds raised by new firms. It can be estimated on the basis of Commerce survey relationships that this sum may total at least $2 billion and possibly as much as $3 billion.

The $6 billion of initial equity funds of new firms in 1946–56 thus appear to have been of approximately equal magnitude to all other external equity funds obtained by established corporations in comparable industries.

The relative availability of external equity funds to large and small businesses may also be gaged from the proportion of funds which came from this source.

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[30] "These compare with an average initial investment in the twenties of about $8,400 by 941 Boston and New Jersey concerns in all industries which filed in bankruptcy in the 1929–31 period." Lawrence Bridge, "The Financing of Investment by New Firms," Conference on Research in Business Financing (National Bureau of Economic Research, 1952), p. 67.

[31] The above estimate is considered very conservative in that investment requirements per firm have undoubtedly increased with higher price levels. Also, investment requirements for wholesale, manufacturing, and construction probably average somewhat higher than for retail firms while only service and miscellaneous firms might average slightly lower investment requirements. In addition, corporations which are generally larger than noncorporate enterprises, constitute an increasing, although still small, percentage of newly established businesses.

[32] Survey of Current Business, September 1957, p. 9.

Stock issues accounted for 3 percent of total external funds obtained by all corporations—large and small—in nonregulated industries in the 1946–56 period, according to Commerce Department estimates.[33] There was apparently little difference in this ratio between small- and medium-size businesses on the one hand and large businesses on the other. A special Commerce Department survey investigated the external funds obtained by small- and medium-sized corporations during the 12 months ending June 30, 1954. If found that established firms (those in existence in early 1951) obtained 3 percent of the total of their external capital requirements through stock issues. Newly established firms (those newly formed in 1951–53) obtained about 10 percent of their capital requirements in equity form.[34]

How the equity funds were obtained by the smaller firms and the groups providing them were not shown in the published survey results. But that such investment does take place as indicated by survey results is consistent with the evidence mentioned previously concerning the large volume of equity funds made available for initial investment in new firms. There are evidently large sums available for equity investment, which reach smaller concerns but in an erratic, haphazard fashion and with no organized national market.[35]

An indication of the wide dispersion of funds which may never see the organized security markets but which may be available for investment with a relative or friend, in a good local opportunity, or in one's own firm is the finding that 2¼ million spending units held $10,000 or more in liquid assets in early 1957. More than 5 million spending units owned at least $5,000. Contacts between businessmen and owners of substantial amounts of liquid funds are undoubtedly numerous and conducive to equity investment, especially where the firm has good prospects and the owners are not set against the entry of outsiders.

The president of an investment firm which had floated a number of capital issues for small businesses had this to say on the demand for equity issues:

> * * * A lot of people think that the tax laws are hurting us. The tax laws are not hurting us. They are definitely helping us. The redistribution of wealth helps the procurement of equity capital, and on this basis: People with large money—that is, several millions—don't want to buy in these small companies. They want to buy Government bonds, they want to keep what they have and don't want to worry about making any more money. So, it is the farmer out in Kansas—I pick on Kansas because it is a particularly good State to sell securities. The farmers out in Kansas now have money and they want to become financiers, and they have heard of capital gains where they are not bothered except for 25 percent of their income. They will buy these issues. Because of the so-called redistribution of wealth and the tax laws, I believe that is very, very favorable to the raising of equity capital. I could not make any suggestions as to how to help it. * * *[36]

In view of the well-known reluctance of many small-business men to permit equity investment by outsiders, it is enlightening to note that funds from internal sources to the same percentage as with all corporafor the latter group to bring the small business average of equity

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[33] Ibid., p. 9.

[34] In each case, percentages based on gross funds have been converted into percentages based on capital requirements.

[35] Of the stock and bond sales to the general public by new manufacturers in the 1946–48 period, only about one-third of the funds was raised with securities registered with the Securities and Exchange Commission. See Bridge, op. cit., p. 69.

[36] Statement of Frederick D. Gearhart, Jr., president, Gearhart & Co., Inc., New York City investment bankers, U. S. Congress, House, Select Committee on Small Business, Availability of Long-Term Credit for Small Business, hearings, 80th Cong., 2d sess. (1948), pp. 306 ff. (at 309).

funds from external sources to the same percentage as with all corporations in comparable industries.

There are grounds for belief that small firms which are expanding rapidly and are most in need of external equity funds are best able to attract such funds. Firms which have favorable growth prospects are especially attractive to investors—public and private—because of large potential taxable gains taxable at low prices. In addition, the marginal return on added equity investment for growth companies is higher so that these firms are in a better position to pay the required price.

There is little published data that bears on this point in any satisfactory way. Individual cases of successful enterprises as reported by publications such as Fortune indicate that many of the successful small enterprises have been able to tap the equity market, but there is no basis for judging how typical or representative these firms may be.

From the limited use made of external equity funds by both large and small firms (only about 3 percent of total external funds for established firms), there is an obvious reluctance to obtain additional equity funds. Reluctance may be based on dilution of share equity because of low prices the market will pay, sharing of information and control with outsiders, or preference for tax-deductible interest payments.

A measure of unsatisfied demand for funds and knowledge of the relevant factors would be extremely useful. "Unsatisfied demand" is very difficult to define and to measure, however. Several attempts have been made, but the concepts of unsatisfied demand used were quite vague.

For example, the Commerce Department obtained information on a basis which resulted in firms saying they were satisfied if they felt there was no use in seriously attempting to obtain funds. Others reported themselves as unsatisfied if they had "seriously considered" obtaining funds for a specific purpose but had rejected the notion themselves because of a poor sales forecast, preference for tax-deductible interest, reluctance to admit outsiders, or because the cost of capital made the investment uneconomic. Without additional information, these findings are not very helpful.

The published tables based on the Commerce Department survey frequently do not distinguish between loan and equity funds, so that one cannot determine the proportion of firms with unsatisfied demand for external equity funds. For what it may be worth, the survey found that in the 12 months ending in June 1954, demand (satisfied and unsatisfied) for equity funds constituted about 10 percent of the total demand for external funds of established firms and about 16 percent for newer firms. Because long-term fund demands were above average in size, these statistics may represent demand of roughly 5 percent of established firms and 8 percent of newer firms.

Established firms obtained about one-third of their equity demands and newer firms about one-half. This suggests that unsatisfied demand for external equity was recorded by possibly 3 percent of established firms and 4 percent of newer firms.

An additional clue in the general area of unsatisfied demand for external equity funds is provided in a 1955 mail survey of members of the National Association of Manufacturers. Again, the data and also the sample leave much to be desired. In response to the question,

"Are you in immediate need of additional funds for financing the operations of your business?" approximately 16 percent of the 1,017 small manufacturing firms responding said, "Yes." [37] Of those needing additional funds, approximately 10 percent said they would prefer to obtain them with common or preferred stock (table 10). The margins of error in the survey are large but the response appears consistent with that of the Commerce Department survey. The NAM survey finding that 2 percent of small firms were in immediate need of additional funds which they would prefer to raise through issuance of common or preferred stock is generally consistent with the 3 to 5 percent of unsatisfied demand of the Commerce survey.

TABLE 10.—*Types of funds preferred, by net worth class of business* [1]

[Number of responses]

Type of financing preferred	Approximate net worth (thousands of dollars)		
	Less than 1,000	1,000 and over	All sizes
Commercial loans	89	31	120
Firm loans	185	32	217
Bonds and mortgages	117	35	152
Stock	49	11	60
All types	440	109	549
Number of respondents	358	84	442

[1] Firms were first asked "Are you in immediate need of additional funds for financing the operations of your business?" Of the 3,492 respondents, 483 noted such a need and were then requested to indicate the type of fund preferred and the approximate amount needed. A total of 442 respondents answered this last question. The answers as to amounts are not included in the report. Some respondents listed more than one type of fund.

Source: National Association of Manufacturers, Financing Small Business 1955, Economic Series No. 70, January 1956.

It is difficult to assess the economic significance of the findings that 2 to 5 percent of small firms would like to have additional equity capital because of the vagueness of the concept of unsatisfied demand. It may be that a larger percentage need such funds and could use them profitably but are unwilling to share control; the surveys provide little information on this point. NAM survey data suggest that general rather than differential scarcity of risk capital may be involved inasmuch as firms with net worth of over $1 million desired immediate access to additional equity capital about as frequently as did firms of lesser net worth.[38]

Cost of equity funds

Available information does not permit a reliable assessment of the relative cost of external equity capital to small and large business firms. A major portion of the funds made available to small- and medium-size firms is obtained from personal and informal contacts for which no information of costs is available. Further, the concept of cost has many dimensions which tend to be overlooked in the literature dealing with financing of small business.

To calculate properly the marginal cost of equity capital requires assessment of the effect of the increment of capital upon all other costs of the firm. For example, additional capital may result in an

[37] Firms with 50 or fewer employees.
[38] National Association of Manufacturers, Financing Small Business, 1955 (1956), p. 13.

improvement in credit rating which would reduce the bank interest rate charged, permit switching of debt from high-cost nonbank sources to low-cost bank sources of double or triple the equity capital involved, allow the firm to shop among suppliers for best price rather than have to accept the price of those suppliers willing to furnish credit, and permit taking advantage of cash discounts which are frequently at the rate of 24 to 36 percent per year. The consequences on total costs of an increase in equity are probably disproportionately greater for small firms than for large firms because the former's debt equity ratio tends to be higher.

Proper consideration of the economic desirability of obtaining external equity capital at a given price requires even broader analysis than total costs. What is required is evaluation of future profits with and without the added capital. Unfortunately, there are no data in the small-business literature that provide any meaningful information concerning the net cost and profitability of additions to equity capital.

Unless the full cost and profit consequences of an increase in equity capital are considered, discussion of the cost of equity capital tends to be irrelevant and misleading.

It is probable that very few small businesses know how to calculate the net cost and profitability of increments to capital. Most small firms probably use as a guide, average return to capital which tends to be much lower than the return possible on marginal capital. Confusion in the computation of the cost of capital is to be expected in the light of general weaknesses in the managerial arts by many large as well as small businesses. This confusion would be consistent with the findings of the Small Business Administration that many small-business men are unaware of the range and character of financial sources available to them.

CONCLUSIONS

One measure of the adequacy of financing is the health and ability to grow of small businesses. By this test, financing appears to have been adequate for the sector as a whole in the postwar period. Incomes of the self-employed rose at least as rapidly as those of the general population, formation of new firms continued at a high rate, business failures were below rates in prosperous prewar years, volume of equity investment in new and established small firms was of considerable magnitude although nearly all of the equity funds bypassed the organized capital markets, and the volume of credit capital made available to small firms increased tremendously.

The heavy flow of equity funds into small businesses has probably been fostered by widespread ownership of liquid assets and other wealth during the postwar period.

A second measure of the adequacy of financing is a fair and equitable distribution of funds. Although it is impossible to set up an absolute standard of fairness, a guide is furnished by trends in the availability and terms of financing. On this basis, it can be said that in the postwar period, credit has become more readily available to small-business, for more extended periods, and at a cost that has differed less and less from that of large businesses. In fact, the tremendous postwar increase in indebtedness of small businesses might

raise the contrary question of whether credit had become too readily available and at too low a price relative to the cost of equity.

A large volume of equity funds has been invested in small businesses in the postwar period with at least $6 billion of initial equity put into the 1 million firms added to the business population. In addition, established small firms have obtained the same proportion of external funds in equity form as have large firms in nonregulated industries, i. e., all industries other than public utilities, communications and railroads. But both large and small established firms in nonregulated industries have made very sparing use of external equity capital, raising only 3 percent of external funds in this form. It can be argued that all businesses—large and small—sought and obtained less equity funds than would be desirable in the long run. Preference for tax-deductible debt payments and the relatively high cost of equity funds are factors influencing both large and small firms. There is also a great reluctance on the part of many closely held small firms to share power and information with outsiders.

Smaller firms have obtained equity funds mainly through personal, informal contacts. Funds for the large firms have been channeled through the organized capital markets. Personal sources make for an uneven distribution of funds with the result that among firms with equally valid claims to additional resources some may obtain them and others may not. Although there are no reliable data on this point, it may be that the greatest difficulty in expanding equity is experienced by closely held firms which have exhausted their informal sources of funds and which do not represent an attractive "growth" situation, or whose owners have curtailed reinvestment of earnings in the business.

Measurement of "unsatisfied demand" of individual firms for loan and equity funds has been attempted in several postwar surveys but the concepts have been so ambiguous that it is difficult to put a precise economic meaning on their findings. Further study is necessary to determine if there are significant maldistributions in small-business financing despite what might be considered an adequate flow of funds to the group as a whole.

VOLUME 2

6. WHAT IS A "SMALL" BUSINESS?[1]

One of the first steps in the investigation, analysis, or discussion of a particular sector of the economy is to define the universe under consideration. In the case of the small-business sector, such a definition ideally would describe not only what kinds of "business" are included but, perhaps more important, what is meant by "small"—the criterion or criteria on which the size classification is based, the limits adopted within that criterion to separate "small" from, say "medium-size" and, whether or not explicitly stated, some justification of the criterion and the limits used.

Definitions of what is a "business" vary widely, particularly with respect to the inclusion or exclusion of medical, legal, or other professions, nonprofit organizations, farming, cooperative organizations, educational institutions, and some or all financial institutions. Examination of conceptual and statistical considerations as to the types of activities that are included in alternative definitions of "business" is outside the scope of this paper. The focus is, rather, on the problem of measuring business size, particularly small size.

Despite the continuing widespread interest in small business—in its financial structure and operating characteristics, its competitive, managerial, and financing problems, and its relation to other sectors of the economy—the basic question of what is a "small" business remains largely unanswered. There is a tendency, when people think of "small business," to do so without reference to any specific definition of size. They think of the corner grocery or variety store struggling to compete for sales and profits with the chainoutlet down the street, or of the relatively young manufacturing concern set up to produce and market a new product and currently experiencing serious working capital and expansion problems, or of the older business—large enough perhaps to have several hundred employees—which is unable currently to retain a volume of after-tax profits adequate to its needs and which also faces probable liquidation on the death of its principal owner. From the one extreme of those who believe that small businesses should be encouraged and protected no matter what the cost, to the other extreme of those who feel that small businesses should be allowed to disappear from many industries in the interest of more efficient utilization of our human, raw material, and financial resources, the term "small business" is usually used—frequently without specific comment on its meaning—in association with some particular type of problem.

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Under certain conditions it may be appropriate to define a small business as "one with a problem." Such a definition is especially suited for use in administering a Government or private program designed to cope with a specific "small business" problem, such as inability to compete effectively for scarce materials, Government contracts, or capital. The problem is already known and clear evidence exists that the concerns that are faced with it are predominantly small, at least in their industry. Also, a definition of size is needed only to establish eligibility under the program—to isolate "small" (i. e., "eligible") businesses from those that are "not small" (i. e., "ineligible").

Such conditions are not present, however, when a definition of "small business" is needed as an analytical tool. A problem is not known in advance; the purpose of a projected study may be to find out what problem, if any, exists or its purpose may be to report on differences by size of concern with respect to some characteristic such as financial structure or profitability, without drawing explicit conclusions as to whether these differences give rise to some "small business" problem. Also, most statistical analyses of size differences require definitions that provide more size classes than "small" and "not small." For such analytical purposes, a definition that classifies businesses according to whether they do or do not have a specific problem or handicap is not generally suitable. The particular aspect of small business that is to be investigated, however, probably has a bearing on the general criterion of size and the specific limits to be used.

The ideal answer to the question of what is a "small" business would probably be a single answer—that is, one that would be meaningful for virtually all analyses for which such a definition is needed, that would remain meaningful over time, that would be feasible to develop, and that would be relatively easy to apply to concerns of all sizes and in all industries. It seems unlikely, however, that such a single, once-and-for-all answer could be developed that would satisfy even the first requirement. Size of business may well need to be measured differently for an analysis of financial structure than for a study of employee turnover, and still differently for a market survey.

Practical considerations are also an important factor. Probably the most serious handicap to developing thoughtful and appropriate definitions of "small" business is that the requisite information is not available (it has not been collected, will not be collected, or cannot be collected). Analysts who are careful to indicate what they mean by "small" business may simply be recording whatever definition they have found it necessary to accept. Thus, it may prove impossible to develop a single objective size-classification that will be adequate for all business studies, or even to develop an ideal one for any one study.

The following section of this paper will discuss various methods of measuring business size, with particular reference to methods that might be considered in studying the influence of size on business financing practices and problems. It will review their application and economic and practical advantages and disadvantages.

The application of one method of measuring business size will be illustrated in the final section. This section will describe the definitions of "small," "medium," and "large" business developed recently

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for use in tabulating and analyzing the 1955 and 1957 Federal Reserve surveys of member bank loans to business. These definitions were based on a special distribution of the business population by asset size which is described in the appendix.

ALTERNATIVE METHODS OF DEFINING BUSINESS SIZE

Any statistical classification (or distribution) of business concerns by size comprises a standard or criterion by which size is measured and numeric class intervals or limits within that criterion. The criterion may be quantitative or qualitative. The numeric size classes may be absolute (assets under $250,000, $250,000–$1,000,000, etc.) or relative (smallest 10 percent, next 10 percent, etc.) A size classification of businesses may be more useful for statistical analysis if labels such as "small," "medium," and "large" are assigned to particular combinations of size classes of the distribution. ("Definition" of business size throughout this paper refers to the assignment of these labels.)

Frequently, as when analyzing a published set of statistics, definitions necessarily reflect the shortcomings, as to criterion and/or size classes, of an already existing distribution. Freedom to choose both the criterion and the size classes of the distribution on which the definitions are to be based greatly facilitates the development of meaningful definitions.

Quantitative versus qualitative criteria

A number of quantitative criteria are already in general use for tabulating statistics on business. These include, among others, the distributions by: Number of employees, used by the Department of Commerce for its series on the business population; number of outlets, used by the Department of Commerce for its series on chainstores versus other retail sales; gross volume, sale, or receipt, used by the Internal Revenue Service for tabulations of data from income tax returns of businesses as published in Statistics of Income, and by the Accounting Corporation of America for data from accounting records prepared for its clients; net income, used by Internal Revenue for income tax return data; total assets, also used by Internal Revenue, as well as by the Federal Trade Commission and Securities and Exchange Commission for their joint Quarterly Financial Report, Manufacturing Corporations, by the Robert Morris Associates for data from its annual survey of financial statements of manufacturing and trade concerns, by the Federal Reserve System for certain tabulations from its special surveys of member bank loans for business purposes, and by a number of other organizations; and total current liabilities, used by Dun & Bradstreet for its series on business failures.

In addition to these statistical tabulations—all of which show data classified by absolute size with no "labels" to indicate which size classes are considered to represent small business—two uses of such "labeling" based on a quantitative criterion may be cited. The United States Small Business Administration uses number of employees as one of the criteria for determining loan eligibility under one part of its lending program.[2] In the Federal Reserve business loan surveys, total assets

[2] For a description of the classification used by SBA see: U. S. Small Business Administration, 7th Semiannual Report, 1957, pp. 37–9; James I. Mills, A Proposed System for Classifying Manufacturing Concerns by Size, U. S. National Production Authority, June 1951; and Size Classification of Manufacturers, Business Information Service, U. S. Department of Commerce, November 1951.

have been used as the criterion for classifying borrowers as "small," "medium," or "large" in each industry (i. e., the loan survey data have been tabulated both by absolute asset size classes that are the same for all industries and by classes of "small," "medium," and "large" that represent different absolute sizes in different industries).

A major advantage of quantitative criteria, particularly when absolute size classes are used, is the ease with which individual businesses may be classified. It may be difficult to assure that the criterion is computed in the same way for all businesses, but once this problem is resolved (e. g., a decision is reached that total receipts are to exclude returns and excise taxes, that they are to relate to the most recent fiscal year, and that in special cases such as banks and finance companies receipts are to be defined in a prescribed manner), the classification is relatively easy to apply and requires a minimum of subjective judgments at the classification level. It is also relatively easy to describe.

While these advantages are important, the criterion used to distinguish small businesses from those of larger size must above all be meaningful. Some quantitative measures of size are likely to be more appropriate than others for particular types of analysis, but the possibility exists—and continues to intrigue those interested in size as a factor in business experience—that no simple, easily calculated, or readily observed quantitative measure is as meaningful as some qualitative criterion.

For studying the availability of credit to small business, or for comparing the financial structure of small, medium-size, and large businesses, for example, an overall financial quantity such as sales volume or total assets would probably be more appropriate than number of employees as a measure of business size. From the point of view of credit availability, however, what is the most meaningful criterion? Are "small" businesses those with total assets of less than a certain amount, or with sales volume that bears a certain relation to the industry total? Or are they rather, as some observers have suggested, those "too small to float securities in the public market," or "unknown to lenders and investors outside one area" or "that sell their goods and services in one community or to one customer"? Are there, in short, qualitative criteria particularly appropriate to a study of credit availability that could be used as the basis for a size distribution of the business population? At present there probably are not. So far as is known, standards of this type have not yet been developed to the point where they are practical for use in statistical analysis.

Their use thus far appears to have been restricted to situations requiring merely that "small" businesses be separated from those "not small." This has been done largely, if not entirely, in connection with determining eligibility for special treatment under various Government programs. The criteria that have been used—e. g., whether the concern is independently owned and operated, whether it is "nondominant" in its field—can be applied effectively to define what is a "small" business for purposes of a particular administrative program.[3] The principal problems in developing such criteria probably

[3] For a discussion of these and other specific criteria that have been used to define "small" business, see James C. Dockery, "What Is Small Business? New Rules," Dun's Review, May 1952.

related to reasonable and practical decisions as to what constituted "independence" or "nondominance."

Considerably more thought and experimentation would be required before a qualitative criterion could be used for statistical analysis of business size differences, primarily because more than two size classes are generally needed for such analysis. How are gradations in size to be determined? It may be feasible to determine whether concerns are or are not independently owned and operated, but how can the 2 size classes that this distinction provides be expanded to 3 or more? It would be hard to formulate—and even more difficult to classify individual concerns according to—several degrees of independence, of nondominance, of competitive position, or of access to financial markets.

For example, if the overall criterion is to be the financial markets in which concerns may obtain funds, what criteria are to be used for the various size classes? One possibility for three classes might be: (1) too localized to get any financing except trade credit outside its own community; (2) large enough to borrow from banks or other lending institutions in a wider geographic area but too small to float securities in the public market; and (3) large enough to utilize the full range of public and private financing facilities. Then, what rules is a statistician to follow in determining which concerns are really too small to use the public capital markets? This problem of finding a relatively simple and objective system for classifying individual concerns probably has to be solved separately for each new qualitative criterion that is developed for statistical analysis. By comparison, quantitative criteria are easy to develop.

Whether they are to be used for actually classifying individual businesses, however, or whether they are used to develop general, nonstatistical definitions of "small" business, qualitative criteria are difficult to formulate. Two questions in particular need to be investigated more thoroughly than is usually necessary with a quantitative criterion.

First, can a criterion be formulated that will avoid prejudging the problems to be considered? Terms such as "too small," "unknown," "localized," for example, when used in connection with the question of credit availability, all represent characteristics that could be expected to restrict the types (though not necessarily the total volume) of credit available.

Second, is it an acceptable as well as a basic characteristic of qualitative critteria that they will frequently imply a distinction between "small," "medium," and "large" at variance with customary usage of these words? The frequent reference to "the local business" as contrasted with the (presumably larger) concern that serves a national market is a case in point. According to this distinction, a locally owned, independent electric power company serving one community or one area is "smaller"—though its assets, sales, income, and payroll are much greater—than one of the hundreds of single-office specialty mail-order businesses whose advertisements appear in increasing numbers in national magazines and Sunday newspapers. Is such a definition appropriate for certain purposes, and if appropriate, is it unambiguous?

Much pioneer work remains to be done before qualitative criteria can be used to measure business size for purposes of statistical analysis. As a first step in developing appropriate and practical qualitative

criteria, emphasis might be placed on collecting information on qualitative characteristics. This could be done in connection with surveys of business of different sizes, even though the size classification of the businesses continued to be based on some quantitative criterion.

Absolute versus relative size classes

In almost all cases where statistical information relating to business concerns is tabulated by some quantitative measure of business size, the class intervals are stated in absolute terms (e. g., 0 to 3 employees, 4 to 7 employees, etc.; or total assets of less than $250,000, $250,000 to $1,000,000, etc.) and no "labels" (e. g., "small," "medium," "large") are provided. Relative size classes (e. g., smallest 10 percent, next 10 percent, etc., in terms of number of employees, sales volume, total assets, or whatever the quantitative criterion may be) are rarely used.

While classification of businesses by absolute size has the advantages of simplicity, statistical precision, and objectivity, it also has a number of disadvantages. The principal disadvantages arise because sufficiently detailed information by size is seldom provided. A large number of size classes is both cumbersome to handle and costly to provide except at too great a sacrifice of statistical reliability. Thus in most existing distributions by absolute size, the classes are not only the same for all industries and constant over time, but also rather limited in number.

Such distributions do not themselves—and because of the limited number of class intervals cannot be adapted to—take adequately into account differences in the average size of concerns in any range of different industries. For this reason, definitions based on these distributions may prejudge the important question of whether size as a factor in business experience is an absolute or a relative matter (e. g., whether a chain of bakeries with total assets of $1 million would seem as small to a lender as a $1 million local steel mill). A limited number of size classes of businesses usually results in a distribution in which the lowest class includes virtually all of the concerns in some industries. Comparison of the financial structure of service concerns of different sizes, for example, is difficult when 97 percent of all businesses in this industrial group are included in 1 size class. Keeping the class intervals the same in absolute terms over time, regardless of growth in the economy, price inflation or deflation, or expansion or contraction in industries complicates the evaluation of longer term trends. In the case of a classification based on total assets, for example, concerns tend to "graduate" from one class to the next over a period of substantial price increase, except that no concerns "graduate" from the top open-end class, while new businesses coming into the lowest class are probably larger than was true of businesses started at a lower price level. The statistical problem of the open-end absolute size class is particularly serious in analyzing longer run differences in the financial experience of small versus big business.

Reliance on relative size classes—smallest 10 percent, next 10 percent, etc., is by no means a complete and simple answer to the shortcomings of absolute classes, though the relative basis has a number of advantages. If sufficiently detailed information is available for using them effectively, relative size classes are simple, subject to statistically precise definition, and easy to describe. They can be kept the same for

all industries and still take account of differences in the average size of concerns in different industries. Their upper and lower limits are specified; there is no open-end class.

As is the case with absolute limits, stating business size in relative terms also prejudges the question of which of the two is the more relevant. This particular problem can be resolved, in any comprehensive statistical investigation, by making available and analyzing tabulations of the data classified both on an absolute and a relative size bsis.

The principal drawback to more extensive use of relative size classes, however, is that sufficiently detailed information is generally not available for using them effectively. A distribution of the business population into, say, percentiles or even quartiles can only be developed from a census or from an extremely detailed distribution by absolute size classes. If such information is available on an absolute basis, it may be more practical to decide how many "labels" are needed, and to assign them to the absolute size classes, rather than to set up a comparatively large number of relative size classes before assigning labels. This procedure is even more appropriate in the usual case in which the information available by absolute size classes does not permit any division of an industry or the all-business universe into equal parts.

Choice of definition

A review of alternative methods of distributing businesses by size suggests that, despite shortcomings, the most feasible basis at present for defining what constitutes a "small" (as contrasted with a "medium-size" or "large") business is a distribution according to some quantitative standard and probably by absolute size classes. This is especially the case with definitions needed for statistical analysis.

While definitions of business size could be expected to vary with the general type of problem to be analyzed, it would seem reasonable to expect that, within a given industry, a single definition could serve for studying all facets of any one broad problem, such as the problem of small-business financing needs and financial structures. Even here, however, the definition of what is a "small" business may vary—perhaps as to criterion but more especially as to size limits—from one study to another. The definitions used for any one study may be largely determined by two factors: First, the statistical characteristics of the distribution on which the definitions are based and of the body of data to which they are applied; and second, the focus of the study or the specific type of analysis planned.

Statistical considerations.—When the definitions are based on and/or applied to an existing statistical tabulation, the criterion as well as the size limits that differentiate the labels "small" from "medium" from "large" may be largely predetermined by the detail available for each tabulation.

A distribution of businesses based on some quantitative criterion with size limits available only in absolute terms does not, of course—and most presently available distributions of this type were never intended to—answer the question of what is a "small" business. This has been considered an objective and desirable way to present data, since it permits the user of the data to develop his own definitions of "small," "medium," and "large," and in so doing to combine the absolute size classes differently in different industries and/or differently for different time periods.

In practice, however, the user has very little freedom in developing his own definitions unless the possibility of such adaptation of the raw data has been foreseen and provided for, primarily by making available a large number of size classes at the top and bottom of the scale. If it has not, the lowest-size class available must usually be called "small" or "very small," the highest class available usually has to be called "large" or "very large," and the classes in between combined and labeled to produce the number of designations desired and appropriate. Under these circumstances, the definition of what is a "small" (or "medium" or "large") business will be virtually the same in all industries and constant over time.

Moreover, the upper limit of what has to be called "small" in all industries (and the lower limit of what has to be called "large") will depend on the detail available for a particular distribution of businesses. Thus the definition used may vary from one study to another, even though the criterion used to measure size is the same. A definition according to asset size, for example, might describe as "small" those concerns with assets under $50,000, or under $250,000—the lowest size class in each of two tabulations of business financial data. (An upper limit of even $50,000, it may be noted, might be considered too high since it encompasses almost every concern in some industries.)

Other considerations.—The definition of what is a "small" business may also depend upon the type of analysis for which the definition is needed. This is particularly the case when analysis is to be made of only a sample of businesses. The type of analysis planned may determine whether the definition should be based on an existing distribution of the universe of businesses, or on an especially constructed distribution of the sample itself. The Federal Reserve surveys of member bank loans to business illustrate this.

For purposes of analyzing the results of the member bank loan surveys as they relate to the use of bank credit by small business, for example, it seemed desirable to base the definition of what is "small" on as large a part of the entire business population as possible, rather than to base it on a distribution of those particular businesses that both wanted bank credit and were able to obtain it. In this case, with a comprehensive analysis planned, with the focus on "small business" rather than on "small borrowers," with a variety of questions to be studied, and with no prior knowledge as to whether the size distribution of businesses and borrowers was approximately the same, the more broadly based definition seemed essential.

If, however, the results of the loan surveys were to be analyzed solely in relation to the cost (rather than the availability) of bank credit to concerns of different size, a definition phrased in terms of what should be considered a "small" business in the universe of bank borrowers might be preferable. The asset distribution of this universe could be especially compiled to avoid some of the problems inherent in existing distributions of businesses by size. The definition of small business derived from it would be appropriate conceptually to the single question to be studied, and it would not be important whether such a definition was virtually the same as one based on a distribution of all businesses or whether the two differed substantially. A definition based on bank borrowers alone, however, could be used only for certain specialized analyses.

The focus of a projected study may also determine whether, in developing definitions of business size, greater weight should be given to number of concerns or to the magnitude of the item used as the criterion of size. The latter may give a more meaningful definition when the analysis is to be restricted to a few questions and a criterion particularly relevant to the questions is available for measuring size. For a study of profits and profitability by size of business, for example, with size measured in terms of receipts or assets, the number of businesses included in the definition of "small" would probably be less pertinent than the total receipts or assets involved. For study of a wide variety of financial and nonfinancial questions, on the other hand, or for analysis of financing problems faced by small businesses, the results might be more meaningful if they related to a large proportion of the concerns in an industry than if they related to concerns that account for a small proportion of the assets of the industry. This distinction does not involve merely a difference in terminology; it affects the absolute limits of the size definitions used in the study. A definition of "small" business based primarily on number of concerns would probably be associated with an upper limit on absolute size that was lower than if the resulting distribution of total assets was the determining factor in distinguishing "small" from "medium."

Regardless of which is given the predominant weight, it is probably desirable, if data on both number and magnitude are available (frequently they are not) and some freedom of choice exists with regard to combining the absolute size classes, to take both into account. This might prevent the possibility of a definition in which "small" business covers such an infinitesimal magnitude and "large" business such an infinitesimal number of companies as to preclude meaningful analysis.

DERIVATION OF DEFINITION OF "SMALL" BUSINESS FOR MEMBER BANK LOAN SURVEY

The definitions of business size used in tabulating the 1957 Federal Reserve survey of member bank loans to business and in making special tabulations of the 1955 survey were derived by first preparing a distribution of all (or almost all) businesses by industry and size, using a quantitative criterion (total assets) and size classes expressed in absolute terms (thousands of dollars). In view of the types of analyses planned, a definition of "small" business that was based on the size structure of the entire business population seemed more suitable than one based on borrowers only.

The available size distributions of the business population, however, use criteria that not only are inappropriate but were not even collected in the loan surveys. The broadest available compilation—based on data drawn from Federal income-tax returns and published in Statistics of Income—that uses as a criterion of size the one comprehensive financial attribute that was collected (total assets) relates only to the 7 percent of the entire business population that is corporate. Rather than base definitions on a size distribution according to some other criterion or on the asset-size distribution for the corporate sector only, the corporate data together with other Federal income-tax return data that were available for unincorporated businesses for the tax year 1953 were used to estimate an asset-size distribution for all legal forms of business organization.

This estimated distribution was then used to determine the combinations of asset classes most appropriate for definitions of "small," "medium," and "large." [4] The definitions vary somewhat from industry to industry in terms of total asset classes, and take into consideration the proportion of the total number of businesses and of the total assets in each industry that "small" business would account for under alternative definitions.

The definitions and the industry-asset distribution on which they are based will be described in detail (see also the appendix) primarily as illustration of some of the kinds of problems that arise in developing a business-size classification. For example, the attempt to extend an asset-size distribution into the noncorporate business sectors illustrates the difficulties of making major adaptations of existing distributions of businesses that use other criteria, and the virtual impossibility of deriving a really meaningful definition of "small" business from the size classes available in most existing distributions.

Another reason for describing the estimating procedures employed is that, while the emphasis here is on the development of size definitions, or "labels," for use in a specific statistical analysis, the industry-size classification of businesses on which the definitions are based may prove to be suitable for application in other fields of business analysis, and the methods used to derive this classification may therefore be of interest.

Choice of criterion and absolute size classes

Total assets was chosen as the criterion for measuring size. While this choice was dictated largely by practical considerations, total assets seemed an appropriate quantitative standard on which to base a definition of "small" business that was to be used for analysis of bank loans. For such a study, a definition based on a distribution of business financial data seemed preferable to one based on, say, output or employment data. Further, since the study was to cover borrowing at banks for all business purposes, some overall measure seemed more appropriate than, say, fixed assets or inventories.

From a practical point of view, either of two financial criteria—total assets or net income—could have been used for an industry-size distribution of businesses based on Federal income-tax return data. Since different definitions of "small" were to be used for the various industries covered in the loan surveys, interindustry differences would not disqualify either of these criteria. Intercompany differences within an industry, however, might disqualify them. Such differences are likely to be much more marked for net income than for total assets. Moreover, a definition based on a criterion other than total assets would have needed to have been converted to an asset-based definition before it could have been applied to the loan survey data.[5]

The specific asset classes used in the distribution were those shown in internal-revenue compilations, and are not in all cases the same as those used in tabulating the loan survey data by absolute size (because

[4] This is the method used for 11 of the 14 industries covered in the loans surveys. The procedures used for the remaining 3 industries are indicated in a later section.

[5] As will be indicated in the appendix, such a conversion was necessary at some stage. Making it when preparing the distribution, rather than when developing the definitions, increased substantially the number of estimates that had to be made (since the three legal forms of organization were handled separately and somewhat differently) but seemed to represent the sounder estimating technique.

the 1955 survey data had already been coded, and recoding of the original schedules was not feasible). Where the two sets of size classes were not identical, adjustment to the loan survey classes was made, unavoidably on a more or less arbitrary basis, at the definition stage. This procedure implicitly views the loan survey definition of small business as one of several possible uses of a general purpose distribution.

Development of an asset-size classification of businesses in each industry involved a number of statistical problems. The most serious of these was the problem of estimating, from such compilations of data from tax returns as were available, asset figures for some corporations, and for all partnerships and all sole proprietorships. The groups estimated account for about 30 percent of all business receipts and for over 90 percent of the number of all businesses. In addition, industry detail available in published compilations differs from one legal form of organization to another, and is still different for the loan survey data.

These problems, and the techniques adopted for handling them, are discussed in the appendix. The estimated industry-asset distribution, which covers all businesses that filed Federal income-tax returns for the tax year 1953, is also shown in the appendix.

Choice of definition

From this distribution, definitions of "small," "medium," and "large" business were developed for 11 of the 14 industries in the loan survey. These definitions are shown in table 1, together with those adopted for the remaining three industries.[6]

The size definitions for the 11 industries and for sales finance companies were selected (subject to the limitations of the basic distribution) with a view toward:

(1) Facilitating meaningful analysis, by size of concern within each industry, of the data to which the definitions were to be applied. The best way to approach this goal, in advance of actually tabulating the bank-loan data, seemed to be for each size designation to cover a significant proportion of the number and total assets of concerns in each industry. A goal expressed in terms of proportions, rather than in terms of absolute magnitudes, seemed more appropriate when definitions based on most of the business population (i. e., businesses filing Federal income-tax returns) were to be applied to a smaller part of the population (those borrowing at member banks) and the magnitudes of number and assets for the latter were not yet known.

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[6] The definitions for sales finance companies are based in part on a Federal Reserve survey of finance companies of all sizes conducted in mid-1955 and in part on a Federal Reserve tabulation covering larger companies only and compiled in 1956. See Survey of Finance Companies, Mid-1955, Federal Reserve Bulletin, April 1957, pp. 392–408; and Consumer Instalment Credit, pt. I, vol. 2 (Board of Governors of the Federal Reserve System, 1957), pp. 5–39.

In the absence of any comprehensive data on the size structure of commodity dealers, the definitions used for wholesale trade were also assigned to this group. For "all other," the definitions used are the same as those for retail trade, services, and construction on the assumption that these would most clearly approximate the average size structure of the agricultural and finance subgroups that comprise this loan survey category.

TABLE 1.—*Definitions of size of borrower developed for use in tabulating results of Federal Reserve surveys of member bank loans to business*

[Total assets, thousands of dollars]

Industry	Small	Medium	Large
Food, liquor, and tobacco	Under 1,000	1,000 to 100,000	100,000 and over.
Textiles, apparel, and leather	Under 1,000	1,000 to 25,000	25,000 and over.
Petroleum, coal, chemicals, and rubber	Under 5,000	5,000 to 100,000	100,000 and over.
Metals and metal products	Under 5,000	5,000 to 100,000	Do.
Other manufacturing and mining	Under 250	250 to 25,000	25,000 and over.
Wholesale trade	Under 250	250 to 5,000	5,000 and over.
Retail trade	Under 50	50 to 1,000	1,000 and over.
Services	Under 50	50 to 1,000	1,000 and over.
Real estate	Under 250	250 to 1,000	1,000 and over.
Construction	Under 50	50 to 1,000	1,000 and over.
Public utilities	Under 50	50 to 100,000	100,000 and over.
Sales finance	Under 5,000	5,000 to 100,000	Do.
Commodity dealers	Under 250	250 to 5,000	5,000 and over.
All other	Under 50	50 to 1,000	1,000 and over.

(2) Taking account of differences in the average size of concern in different industries. An appropriate way to do this is to have any one label (e. g., "small") cover roughly the same proportion of the number of concerns in each industry. In some industries, however, a choice had to be made between maintaining consistency among industries in this respect and tolerating some inconsistency in order to improve substantially the distribution of total assets among size classes within the industry. In developing the definitions described here, the choice was made in favor of the second alternative.

(3) Giving primary consideration to the definition of "small" business. Thus, in industries in which a choice had to be made between a definition of "large" that would include a significant proportion of the number of concerns and a definition of "small" that would include a significant proportion of the total assets of the industry, the choice was made in favor of the latter alternative.

The choices and compromises that were made in approaching these three goals may be illustrated by reference to table 2. The upper tier shows, for 11 industries, cumulative proportions of number and assets for each asset size under $5 million, as computed from the estimated distribution that was derived from tax return data. The lower tier shows pertinent data and cumulative proportions of number and assets for sales finance companies of all sizes as computed from the Federal Reserve finance company survey.

TABLE 2.—*Number and total assets of concerns in selected industries, cumulative percentage distribution, by size class*

A. INDUSTRIES BY ASSET CLASSES

Industry	Number under assets class (in thousands of dollars)					Assets under assets class (in thousands of dollars)				
	50	[1] 100	250	1,000	5,000	50	[1] 100	250	1,000	5,000
	Percent					Percent				
Food, liquor, and tobacco	59.6	75.7	86.4	(95.7)	99.0	1.4	3.5	6.7	(15.1)	27.6
Textiles, apparel, and leather	60.0	75.3	86.5	(96.0)	99.2	2.8	6.4	12.3	(27.5)	48.9
Metals and products	47.6	66.1	79.7	92.2	(97.7)	.6	1.6	3.3	8.0	(17.2)
Petroleum, coal, chemicals, and rubber	73.3	80.2	89.0	95.9	(98.8)	.4	.9	2.2	5.3	(11.0)
Other manufacturing and mining	81.9	89.0	(94.5)	98.4	99.7	6.7	11.2	(17.3)	29.9	48.5
Wholesale trade	74.6	84.1	(93.9)	98.8	99.8	6.0	13.0	(28.7)	51.6	71.6
Retail trade	(90.8)	96.5	99.1	99.9	100.0	(29.9)	44.7	59.1	71.6	79.7
Services	(97.0)	98.8	99.6	99.9	100.0	(34.7)	45.7	57.1	71.2	83.2
Real estate	68.7	77.3	(90.9)	98.4	99.8	12.7	18.1	(33.7	57.7	80.6
Construction	(92.3)	95.4	98.6	99.7	100.0	(18.2)	26.7	45.8	65.4	82.1
Public utilities	(93.3)	95.8	98.3	99.3	99.8	(1.3)	1.9	3.2	4.9	7.9

B. SALES FINANCE, BY CONSUMER LOAN CLASSES

Item	Consumer loan class (in thousands of dollars)					
	Under 100	100 to 500	500 to 1,000	1,000 to 5,000	5,000 to 25,000	25,000 and over
Number	850	930	440	320	61	29
Average loans (in thousands of dollars)	40	220	655	1,981	10,492	2,758,000
Average assets (in thousands of dollars)	141	346	850	3,488	13,705	3,654,500
Cumulative percentage from smallest class:						
Number	32.4	67.9	84.7	(96.9)	99.2	100
Assets	1.2	4.4	8.1	(19.2)	27.5	100

[1] This class not available for loan-survey tabulations.

NOTE.—Figures in parentheses in each industry indicate proportion defined as "small."

As may be seen in the table, more than 90 percent of the number of concerns in 4 of the 11 industries (retail trade, services, construction, and public utilities) are included in the lowest size class available. In line with the consideration stated in (1) above, "small" would be defined for the other 7 industries so as to include at least 90 percent of the businesses. This procedure would leave no more than 10 percent of the concerns in each industry to be defined as "medium" or "large."

An alternative would be to include a lower proportion, say 75–80 percent, in the definition of "small" for the 7 industries, to include as close to 10 percent as possible in the definitions of "medium" and of "large" and treat the 4 industries as unavoidable exceptions to this pattern. Such a procedure would have resulted in definitions for most of the 7 industries that would have included only 3 to 7 percent of total assets in "small" and about the same low proportion in "medium." This alternative was discarded, in line with consideration (3).

The general procedure that was adopted was to include in "small" considerably more than 90 percent of the companies in an industry if an unusually high proportion of the number was necessary in order to account for at least 10 percent of the industry assets. The application in the petroleum group is the most striking example. In the four other manufacturing and mining industries, the higher of two alternative cutoff points was chosen as the dividing line between "small"

and "medium" for this same reason and/or because of the sharp increase in asset coverage that results from using the higher limit.[7] In the public utility group, on the other hand, raising the cutoff point by even 2 or 3 size classes would still have given a definition of "small" that would have included a very low proportion of total public utility assets.

The definition of "small" for sales finance companies presented a special problem. The logical cutoff point, consistent with the coverage of number and assets in other industries, is at $5 million as may be seen from table 2. This represents $5 million of consumer loans; companies with loans of this volume probably have 8 to 9 million dollars of total assets. The size classes used for tabulating the results of the loan survey, however, provide no intermediate cut off point between $5 million and $25 million, and the lower of these 2 was therefore used as the upper limit of "small" in this industry.

Appendix

Statistical Problems, Estimating Techniques, and Basic Tables

This appendix describes the statistical problems encountered and the estimating techniques employed in developing, recently, a distribution of businesses by industry and size. This distribution was prepared as a prerequisite to developing definitions of size (i. e., "small," "medium," and "large") for use in classifying and analyzing the results of the 1955 and 1957 Federal Reserve surveys of member bank loans for business purposes.

The distribution represents estimates of the number, total assets, and compiled receipts, by industry and asset class, of the more than 9 million corporations, partnerships, and sole proprietorships that filed Federal income-tax returns for the tax year 1953 (i. e., fiscal years ending July 1, 1952 to June 30, 1953), the only recent year for which compilations of tax return data by industry are available for the two forms of unincorporated business. These estimates are shown, by industry and asset size as well as by legal form of organization and asset size, in the tables on pages 40 through 47.

The problems encountered in developing the distribution were of two types: those that resulted from gaps and inconsistencies in the industrial detail available; and those that arose because of the absence of any industry-asset size information for the noncorporate sector.

Problems of industry detail

Tabulations of tax return data by industry and size do not include the same industrial detail for corporations, partnerships, and sole proprietorships. Though businesses of all three types are classified by internal revenue according to the Standard Industrial Classification (SIC), industries in which most businesses are incorporated are

[7] With over 90 percent of the number of concerns in every industry included in "small" and most of the remainder defined as "medium," the proportion defined as "large" in most industries is very low. It would be low, however, under any size classification that attempted to include in "small" more than a token percentage of total assets. In 6 of the 11 industries (public utilities and each of the manufacturing and mining groups) and in the sales finance group, a fraction of 1 percent of the companies account for more than one-half of total assets in the industry. In the public utility industry and in the group that includes petroleum, coal, chemical, and rubber companies, 4 percent of the number account for 98 and 95 percent, respectively, of the total assets. Less than 5 percent of the number account for 80–85 percent of total assets in sales finance and in 2 manufacturing and mining groups.

not shown separately in the industry-size tabulations of noncorporate data and vice versa because the number, or the magnitudes involved, are very small and subject to large sampling errors. In other cases, some size classes have been combined, either to reduce sampling error in the lowest classes or to avoid disclosure in the highest classes. Data for these industries are included, however, in the totals by industry and in the totals by size for each form of organization, and were used to estimate certain of the missing cross-classifications.

Two further problems of industry detail arise in connection with the specific use that has been made of the distribution described here. First, the industrial classification used for the loan surveys and that used for the tax return data are not entirely comparable. In particular, sales finance companies and commodity dealers are isolated as separate industrial groups in the loan surveys, because they are such important users of bank credit, but they are not classified separately in internal revenue compilations. In these two industries, therefore, tax return data cannot be used as a basis for defining size. Second, the definition of "loans for business purposes" used in the loan surveys follows the call report classification and excludes loans to a number of industries included in internal-revenue data on businesses. These excluded industries are: Farms (but the rest of the SIC group "agriculture, forestry, and fishing" is included); educational services; and all of the SIC major group "finance, insurance, and real estate" except sales finance, commercial finance, real estate, insurance agents, and combination offices.

The estimated industry-asset distribution covers all industries whether or not bank credit extended to them is covered in the loan surveys. It includes separate estimates for the real-estate subgroup and for the remainder of the finance, insurance, and real-estate group, but no adjustment has been made to take account of the exclusion of educational services and farms from the loan survey definition of "business." Educational services account for a relatively small proportion of the services group, and their inclusion is not likely to distort the size definitions developed for services. Farms account for 97 percent of all businesses in the agriculture, forestry, and fishing group, but the remaining businesses are classed in the loan surveys as "all other"—a category for which an arbitrary definition of "small" business was adopted. Some further adjustment would probably be desirable in order to isolate the agricultural and finance subgroups that comprise this "all other" category.

Some other industries that are shown separately in the loan surveys and in the SIC are not available separately for one or more legal forms of organization in the industry-size tabulations of tax return data. The method of handling this problem was indicated on page 32.

Problems of asset information

The most serious problem involved in basing the estimated distribution by asset size on tax return data was that the desired information on number and on total assets, cross-classified by industry and asset class, is available only for corporations filing balance sheets and must be estimated for the relatively few corporations not filing balance

sheets, for all partnerships, and for all sole proprietorships.[9] Unincorporated concerns account for an estimated 14 percent of the total assets, but for 93 percent of the number, of all businesses filing Federal income-tax returns.

Information is available, however, on number and total receipts of partnerships and sole proprietorships, cross classified by industry and receipts class. For partnerships, it is available separately for concerns with and without net income. For sole proprietorships the cross-classification is available by broad industry groups only and for net income businesses only (although information on number and receipts by receipts class with no industry detail is available for proprietorships with no net income).

The estimates of number and total assets, by industry and assets class, were derived from these compilations of number and total receipts. The basic assumption on which the estimates rest is that, within any industry-asset class, total assets show approximately the same relation to receipts regardless of legal form of organization. This assumption, which seems reasonable at least within detailed industry groups, is borne out by the ratio of assets to receipts for corporations filing balance sheets which is remarkably constant for different size classes within even broad industry groups. The ratio increases steadily as size increases but does not change erratically from one size class to the next (except occasionally among the highest classes in which the number of companies is relatively small). The level of the ratio varies considerably from one industry to another, however.

Estimating technique

The distributions of number of returns and total receipts by industry and receipts class were converted to distributions of number and total assets by industry and assets class, as follows:

(1) In order to make the industry groups as comparable as possible for all legal forms of organization, size distributions of number and receipts (and also assets in the case of corporations with balance sheets) were first estimated for some industry groups included in aggregate tax return data but not shown separately in the detailed tabulations for one or more forms of organization.

(2) Average receipts and the ratio of assets to receipts were computed, for each industry-asset size class and separately for returns with net income and with no net income, for corporations (figures for corporations with balance sheets having first been adjusted, on the basis of average receipts, to include corporations not filing balance sheets).

(3) Average receipts of partnerships and of sole proprietorships were computed, for each industry-receipts class and—in the case of partnerships—separately for returns with and without net income.

(4) Receipts in each industry-receipts class of each of the two types of unincorporated concerns were assigned to the asset class, or com-

[9] Information on number of returns, assets, receipts, and other selected balance sheet and income account items is available by industry for a small sample of partnerships for the year 1953. Information is not available by asset size, however, and the sample is not representative of the size distribution of all partnerships, average receipts in each industry running much higher than for the universe of partnerships filing Federal income-tax returns. This tabulation therefore was not used in deriving universe estimates of the number and total assets of partnerships by asset size.

bination of classes, in which corporations had the same average receipts. This step provided a distribution of number and receipts by asset class for each industry.

(5) Total assets in each industry-asset class of each of the two types of concerns were estimated by multiplying the total receipts assigned to that class by the ratio of receipts to assets of corporations in the same class.

This procedure, of using an industry-asset distribution of corporations as the basis for estimating a similar distribution of unincorporated businesses, has a number of shortcomings. First, the lowest asset-size class available for corporations was "under $50,000." [10] In this size class, the average partnership or proprietorship is much smaller in terms of receipts, and probably in terms of total assets, than the average corporation. Since the ratio of assets to receipts increases as size increases, the ratio is probably higher for corporations with assets under $50,000 than for unincorporated businesses in this size class. Inability to develop estimates for 1 or 2 additional classes below $50,000 resulted not only in the inclusion in a single size class of the great bulk of the number of unincorporated businesses but also in the probable overstatement of both average assets and total assets in this class and in the noncorporate universe.

Second, at the upper end of the size range it was not feasible to include any sole proprietorships in the asset classes of $10 million and over. The highest receipts class available for this type of unincorporated business is "$100,000 or more." While most of the concerns in this receipts class probably have assets of less than $10 million, some are probably larger. No way could be found to isolate these large proprietorships and they are therefore implicitly included in a lower asset class than they should be. It seems reasonable to assume, however, that the miscalculations are too few in number either to distort the industry estimates for the higher classes or to offset more than a minor part of the overstatement of noncorporate assets noted above.

Third, the procedure had to be applied to rather broad industry groups. The relative importance of minor groups is undoubtedly quite different for unincorporated and incorporated businesses in some of the broader industry categories (e. g., public utilities—a category, usually assumed to comprise large corporations, in which unincorporated concerns account for 91 percent of the number though for only 2 percent of the estimated assets) and it is not known whether such differences invalidate the use of the corporate assets/receipts ratio to estimate noncorporate business assets, that is, whether the assets/receipts ratio varies markedly among minor industries as well as among major groups.

Finally, it was not feasible to estimate industry-asset distributions of sole proprietorships separately for net income and net loss businesses. The assets/receipts ratio is higher for corporations with no net income than for those with net income and for this reason net loss and net income concerns were treated separately where possible. The proportion of concerns that reported a loss in 1953 was generally

[10] With publication of Statistics of Income (1954), data became available for a lower size class (assets under $25,000) of corporations. It was necessary, however, to base the estimates on the less detailed compilations for 1953, since information on number and receipts of unincorporated businesses by industry is not available for 1954.

lower for proprietorships than for corporations, and inability to treat the net loss businesses separately probably results in a further overstatement of total proprietorship assets.

Despite these shortcomings, of which the absence of any asset class lower than "under $50,000" is the most serious from the point of view of developing a meaningful definition of "small" business, no more satisfactory way of estimating an industry-asset distribution of unincorporated business was found.

APPENDIX TABLE 1.—*Number, total assets, and receipts of business, by industry and asset class*

Industry	Asset class (thousands of dollars)									
	All sizes [1]	Under 50	50 to 100	100 to 250	250 to 1,000	1,000 to 5,000	5,000 to 10,000	10,000 to 50,000	50,000 to 100,000	100,000 and more
	A. Number (in thousands)									
All industries	9,371.1	8,639.2	323.3	228.8	124.8	40.4	7.1	5.9	0.8	0.9
Agriculture	3,362.6	3,337.6	11.8	7.3	5.1	.7	(2)	(2)	--------	(2)
Construction	495.6	457.2	15.6	16.1	5.4	1.1	.1	.1	(2)	(2)
Manufacturing and mining	407.9	290.6	42.9	33.5	27.1	10.2	1.6	1.5	.2	.2
Food, liquor, and tobacco	37.2	22.2	6.0	4.0	3.5	1.2	.2	.2	(2)	(2)
Textiles, apparel, and leather	46.1	27.7	7.0	5.2	4.4	1.5	.2	.1	(2)	(2)
Petroleum, coal, chemicals, and rubber	49.8	36.5	3.5	4.4	3.4	1.4	.2	.3	(2)	.1
Metals and metal products	60.5	28.8	11.2	8.2	7.5	3.3	.6	.6	.1	.1
Other manufacturing and mining	214.3	175.5	15.2	11.7	8.3	2.8	.4	.3	(2)	(2)
Public utilities	320.0	298.6	7.9	7.9	3.4	1.4	.3	.3	.1	.2
Wholesale trade	343.5	256.2	32.9	33.4	16.9	3.5	.3	.2	(2)	(2)
Retail trade	1,963.1	1,781.7	112.6	50.6	15.5	2.3	.2	.2	(2)	(2)
Services	1,694.8	1,643.9	29.8	14.1	5.7	1.1	.1	(2)	(2)	(2)
Real estate	370.9	254.6	32.1	50.5	28.0	5.1	.4	.2	(2)	(2)
Finance other than real estate	215.4	147.7	20.5	9.7	14.8	14.5	4.0	3.4	.5	.5
Business not allocable	197.5	171.1	17.4	5.8	2.8	.4	(2)	(2)	(2)	(2)
	B. Total assets (in millions of dollars)									
All industries	886.9	50.1	23.6	35.1	56.8	87.1	49.2	119.6	56.3	409.1
Agriculture	16.1	10.0	.8	1.2	2.1	1.2	.2	.1	--------	.4
Construction	13.2	2.4	1.1	2.5	2.6	2.2	.9	1.2	.1	.1
Manufacturing and mining	198.3	3.4	3.4	5.4	13.1	21.7	11.3	31.1	14.7	94.2
Food, liquor, and tobacco	20.5	.3	.4	.7	1.7	2.6	1.3	3.5	1.7	8.3
Textiles, apparel, and leather	14.1	.4	.5	.8	2.2	3.0	1.4	2.7	1.3	1.7
Petroleum, coal, chemicals, and rubber	54.0	.2	.2	.7	1.6	3.1	1.7	6.0	3.1	37.3
Metals and metal products	78.7	.4	.8	1.3	3.7	7.2	4.4	11.9	6.1	42.7
Other manufacturing and mining	31.0	2.1	1.4	1.9	3.9	5.8	2.5	6.9	2.5	4.2
Public utilities	97.3	1.3	.6	1.3	1.6	2.9	1.6	6.6	6.0	75.5
Wholesale trade	34.4	2.1	2.4	5.4	7.9	6.9	2.3	3.7	1.3	2.5
Retail trade	54.9	16.4	8.1	7.9	6.9	4.4	1.4	3.0	1.2	5.6
Services	19.1	6.6	2.1	2.2	2.7	2.3	.8	1.0	.3	1.1
Real estate	43.2	5.5	2.3	6.8	10.4	9.9	2.9	3.4	1.1	1.0
Finance other than real estate	404.4	1.5	1.5	1.6	8.1	34.7	27.6	69.4	31.4	228.6
Business not allocable	6.0	.9	1.3	.9	1.3	.9	.2	.2	.1	.2

See footnotes at end of table, p. 168.

APPENDIX TABLE 1.—*Number, total assets, and receipts of business, by industry and asset class*—Continued

Industry	Asset class (thousands of dollars)									
	All sizes [1]	Under 50	50 to 100	100 to 250	250 to 1,000	1,000 to 5,000	5,000 to 10,000	10,000 to 50,000	50,000 to 100,000	100,000 and more
	C. Receipts [2] (in millions of dollars)									
All industries	782.7	136.9	56.3	74.5	97.6	90.6	35.2	75.3	32.7	183.7
Agriculture	28.5	22.4	1.3	1.3	1.8	.8	.1	.1	-------	.5
Construction	34.1	10.6	3.2	6.5	5.8	4.0	1.8	1.9	.2	.1
Manufacturing and mining	308.7	9.0	7.8	13.0	29.1	40.2	18.5	45.1	20.9	125.1
Food, liquor, and tobacco	50.5	1.1	1.3	1.9	5.3	7.3	3.0	7.6	3.8	19.2
Textiles, apparel, and leather	27.6	1.7	1.7	2.6	5.7	6.0	2.3	4.0	1.6	1.9
Petroleum, coal, chemicals, and rubber	59.4	.5	.4	1.3	2.8	4.2	2.4	6.6	3.1	38.2
Metals and metal products	123.9	1.1	1.7	2.9	7.7	13.2	7.4	18.5	9.6	61.7
Other manufacturing and mining	47.3	4.7	2.6	4.2	7.6	9.5	3.4	8.4	2.8	4.2
Public utilities	44.7	3.1	1.1	1.9	2.3	3.3	1.2	3.4	2.7	25.7
Wholesale trade	116.0	10.0	9.6	20.3	27.8	22.7	6.8	11.7	3.1	4.1
Retail trade	168.2	58.5	24.4	23.7	20.7	11.5	3.5	6.9	2.9	16.2
Services	33.7	17.8	3.9	3.2	3.4	2.6	.9	1.1	.2	.7
Real estate	8.6	1.5	.5	1.7	2.3	1.5	.4	.4	.1	(4)
Finance other than real estate	24.4	.9	.6	.5	1.2	2.1	1.5	4.3	2.4	11.0
Business not allocable	15.8	3.0	3.9	2.5	3.2	1.7	.4	.3	.2	.4

[1] Figures shown in this column are, except for some regrouping of industries, as shown in U. S. Internal Revenue Service, Statistics of Income for 1953: Pt. I, Individual Income Tax Returns; Pt. II, Corporation Income Tax Returns; and Partnership Returns.

[2] Less than 50.

[3] Item tabulated is total compiled receipts for corporations, and total receipts for partnerships and sole proprietorships.

[4] Less than $50,000.

NOTE.—Details may not add to totals because of rounding.

APPENDIX TABLE 2.—*Number, total assets, and receipts of business, by industry and asset class*

[Percentage distribution]

Industry	Asset class (thousands of dollars)									
	All sizes	Under 50	50 to 100	100 to 250	250 to 1,000	1,000 to 5,000	5,000 to 10,000	10,000 to 50,000	50,000 to 100,000	100,000 and more
	A. Number									
All industries	100.0	92.2	3.5	2.4	1.3	0.4	0.1	(1)	(1)	(1)
Agriculture	100.0	99.3	.4	.2	.2	(1)	(1)	(1)	-------	(1)
Construction	100.0	92.3	3.2	3.2	1.1	.2	(1)	(1)	(1)	(1)
Manufacturing and mining	100.0	71.3	10.5	8.2	6.7	2.5	.4	0.4	0.1	0.1
Food, liquor, and tobacco	100.0	59.6	16.1	10.7	9.3	3.3	.5	.4	.1	.1
Textiles, apparel, and leather	100.0	60.0	15.3	11.2	9.5	3.2	.4	.3	(1)	(1)
Petroleum, coal, chemicals, and rubber	100.0	73.3	6.9	8.8	6.9	2.9	.5	.5	.1	.1
Metals, and metal products	100.0	47.6	18.5	13.6	12.5	5.5	1.0	1.0	.1	.2
Other manufacturing and mining	100.0	81.9	7.1	5.5	3.9	1.3	.2	.2	(1)	(1)
Public utilities	100.0	93.3	2.5	2.5	1.1	.4	.1	.1	(1)	.1
Wholesale trade	100.0	74.6	9.6	9.7	4.9	1.0	.1	.1	(1)	(1)
Retail trade	100.0	90.8	5.7	2.6	.8	.1	(1)	(1)	(1)	(1)
Services	100.0	97.0	1.8	.8	.3	.1	(1)	(1)	(1)	(1)
Real estate	100.0	68.7	8.6	13.6	7.5	1.4	.1	.1	(1)	(1)
Finance other than real estate	100.0	68.6	9.5	4.5	6.9	6.7	1.8	1.6	.2	.2
Business not allocable	100.0	86.6	8.8	2.9	1.4	.2	(1)	(1)	(1)	(1)

[1] Less than 0.05 percent.

APPENDIX TABLE 2.—*Number, total assets, and receipts of business, by industry and asset class*—Continued

Industry	All sizes	Under 50	50 to 100	100 to 250	250 to 1,000	1,000 to 5,000	5,000 to 10,000	10,000 to 50,000	50,000 to 100,000	100,000 and more
	Asset class (thousands of dollars)									
	B. Total assets									
All industries	100.0	5.7	2.8	4.0	6.4	9.8	5.5	13.5	6.3	46.1
Agriculture	100.0	62.1	5.2	7.2	13.2	7.6	1.3	.8	----	2.4
Construction	100.0	18.2	8.5	19.1	19.6	16.8	6.8	9.3	1.0	.8
Manufacturing and mining	100.0	1.7	1.7	2.7	6.6	10.9	5.7	15.7	7.4	47.5
Food, liquor, and tobacco	100.0	1.4	2.1	3.2	8.4	12.5	6.3	17.2	8.4	40.5
Textiles, apparel, and leather	100.0	2.8	3.6	5.9	15.2	21.4	10.0	19.5	9.4	12.1
Petroleum, coal, chemicals, and rubber	100.0	.4	.5	1.3	3.1	5.7	3.2	11.2	5.7	69.0
Metals and metal products	100.0	.6	1.0	1.7	4.7	9.2	5.6	15.2	7.8	54.3
Other manufacturing and mining	100.0	6.7	4.5	6.1	12.6	18.6	8.0	22.1	7.9	13.6
Public utilities	100.0	1.3	.6	1.3	1.7	3.0	1.6	6.8	6.2	77.6
Wholesale trade	100.0	6.0	7.0	15.7	23.0	20.0	6.8	10.6	3.8	7.2
Retail trade	100.0	29.9	14.8	14.4	12.5	8.1	2.6	5.4	2.1	10.2
Services	100.0	34.7	11.0	11.4	14.1	12.0	4.3	5.0	1.8	5.7
Real estate	100.0	12.7	5.3	15.6	24.0	22.8	6.6	7.8	2.7	2.3
Finance other than real estate	100.0	.4	.4	.4	2.0	8.6	6.8	17.2	7.8	56.5
Business not allocable	100.0	15.1	20.8	15.1	21.7	15.1	3.0	3.5	1.9	3.8
	C. Receipts[1]									
All industries	100.0	17.5	7.2	9.5	12.5	11.6	4.5	9.6	4.2	23.5
Agriculture	100.0	78.6	4.7	4.7	6.2	3.0	.5	.5	----	1.9
Construction	100.0	31.2	9.4	19.1	17.0	11.7	5.2	5.4	.6	.3
Manufacturing and mining	100.0	2.9	2.5	4.2	9.4	13.0	6.0	14.6	6.8	40.5
Food, liquor, and tobacco	100.0	2.1	2.6	3.8	10.5	14.4	5.9	15.0	7.5	38.0
Textiles, apparel and leather	100.0	6.3	6.3	9.4	20.5	21.9	8.4	14.6	5.8	6.9
Petroleum, coal, chemicals, and rubber	100.0	.8	.8	2.2	4.7	7.1	4.0	11.0	5.1	64.3
Metals and metal products	100.0	.8	1.4	2.4	6.2	10.7	6.0	14.9	7.8	49.8
Other manufacturing and mining	100.0	9.9	5.4	8.8	16.1	20.0	7.3	17.8	5.8	8.8
Public utilities	100.0	6.9	2.4	4.4	5.2	7.3	2.7	7.6	6.1	57.4
Wholesale trade	100.0	8.6	8.3	17.5	24.0	19.6	5.9	10.1	2.7	3.5
Retail trade	100.0	34.8	14.5	14.1	12.3	6.8	2.1	4.1	1.7	9.6
Services	100.0	52.7	11.5	9.5	9.9	7.8	2.7	3.3	.5	2.0
Real estate	100.0	18.0	6.2	19.3	26.7	18.0	4.7	5.1	1.4	.5
Finance other than real estate	100.0	3.7	2.4	1.9	4.9	8.7	6.3	17.5	9.8	44.9
Business not allocable	100.0	19.3	24.5	15.8	20.6	11.0	2.7	2.2	1.3	2.7

NOTE.—Details may not add to totals because of rounding.

APPENDIX TABLE 3.—*Number, total assets, and receipts of business, by legal form of organization and asset class*

Form of organization	Asset class (thousands of dollars)									
	All sizes [1]	Under 50	50 to 100	100 to 250	250 to 1,000	1,000 to 5,000	5,000 to 10,000	10,000 to 50,000	50,000 to 100,000	100,000 and more
	A. Number (in thousands)									
All forms	9,371.1	8,639.2	323.3	228.8	124.8	40.4	7.1	5.9	0.8	0.9
Corporations	608.0	303.1	125.7	132.7	88.9	34.2	6.2	5.6	.7	.9
Partnerships	958.6	826.0	64.3	39.4	24.8	3.2	.6	.3	.1	(2)
Sole proprietorships	7,714.5	7,510.1	133.4	56.6	11.1	3.0	.3			
	B. Total assets (in millions of dollars)									
All forms	886.9	50.1	23.6	35.1	56.8	87.1	49.2	119.6	56.3	409.1
Corporations	766.1	6.4	9.1	21.1	42.4	73.8	43.3	113.1	52.0	405.0
Partnerships	57.8	10.4	4.9	5.0	11.7	6.7	4.0	6.5	4.3	4.1
Sole proprietorships	63.1	33.4	9.6	9.0	2.7	6.6	1.8			
	C. Receipts [3] (in millions of dollars)									
All forms	782.7	136.9	56.3	74.5	97.6	90.6	35.2	75.3	32.7	183.7
Corporations	558.2	16.3	18.8	41.5	76.6	82.5	33.1	73.5	32.4	183.5
Partnerships	80.7	26.1	11.3	12.4	19.2	7.4	2.0	1.8	.3	.2
Sole proprietorships	143.8	94.5	26.2	20.6	1.7	.6	.1			

[1] Internal Revenue Services, op. cit.
[2] Less than 50.
[3] Item tabulated is total compiled receipts for corporations, and total receipts for partnerships and sole proprietorships.

NOTE.—Details may not add to totals because of rounding.

APPENDIX TABLE 4.—*Number, total assets, and receipts of business, by legal form of organization and asset class*

[Percentage distribution]

Form of organization	Asset class (thousands of dollars)									
	All sizes	Under 50	50 to 100	100 to 250	250 to 1,000	1,000 to 5,000	5,000 to 10,000	10,000 to 50,000	50,000 to 100,000	100,000 and more
	A. Number									
All forms	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Corporations	7.5	3.5	38.9	58.0	71.3	84.6	88.0	94.5	92.3	99.0
Partnerships	10.2	9.6	19.9	17.2	19.8	8.0	8.2	5.5	7.7	1.0
Sole proprietorships	82.3	86.9	41.3	24.7	8.9	7.4	3.8			
	B. Total assets									
All forms	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Corporations	86.4	12.7	38.4	60.1	74.7	84.7	88.1	94.5	92.3	99.0
Partnerships	6.5	20.7	20.9	14.3	20.6	7.7	8.2	5.5	7.7	1.0
Sole proprietorships	7.1	66.6	40.7	25.6	4.7	7.6	3.8			
	C. Receipts									
All forms	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Corporations	71.3	11.9	33.4	55.7	78.5	91.1	94.1	97.6	99.0	99.9
Partnerships	10.3	19.1	20.1	16.6	19.7	8.2	5.5	2.4	1.0	.1
Sole proprietorships	18.4	69.1	46.5	27.7	1.8	.6	.3			

NOTE.—Details may not add to totals because of rounding.

7. SMALL BUSINESS IN THE AMERICAN ECONOMY[1]

When we speak of the role of small firms in the American economy, we have two quite distinct sets of considerations in mind. First, the obvious role of small business is to carry on the business of manufacturing goods, or selling them, or of providing a wide variety of services to businesses and consumers. The role of small business in that respect is measured by its share of total output, the capital it uses or the number of persons employed in small business.

In 1951 firms with less than 100 employees accounted for over two-thirds of the paid employment in the fields of retail and wholesale trade, construction, and service. They accounted for slightly over 20 percent of paid employment in manufacturing. Firms with fewer than 100 paid employees accounted for about 40 percent of all nonagricultural employment.[2]

There is no doubt that in a simple quantitative sense small business is important. It is easy enough to see what goods are made, what services performed, by small business. But the real question is: does it make any difference whether those things are done by small business? We really want to know whether the existence of small business in America makes our economy more or less efficient, progressive, and stable than it would be without small business.

The answer to such general questions is always "yes" and "no." Without doubt there are some small businesses which are more efficient than some large businesses, and vice versa. There are some ways in which small business contributes to economic stability and some ways in which it reduces stability.

No simple generalizations on the role of small business are possible. What we must do is to examine the general nature of the effects of the small-business sector on efficiency, progress, and stability.

To do that we begin by considering the relative efficiency of small and large firms. Because technical and market conditions differ from industry to industry no generalization on relative efficiency which applies to all industries is possible. But it is possible to show in general terms how size of firm influences production costs and to summarize the results of statistical comparisons of costs in firms of varying size in a number of industries.

In the following section we consider the role of small business in making competition effective. It is shown that the existence of small- and medium-sized firms does tend to make price competition more effective. It is also argued that their existence increases the incentives of large firms to invest in order to reduce costs and improve products.

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[1] By James S. Duesenberry, Harvard University.
James S. Duesenberry holds a B. A., M. A., and Ph. D., University of Michigan. Taught at University of Michigan, Massachusetts Institute of Technology, and Harvard. At Harvard since 1946. Publications: Income, Saving and the Theory of Consumer Behavior, and Business Cycles and Economic Growth.

[2] Betty C. Churchill, Size Characteristics of Business Population, U. S. Department of Commerce, Survey of Current Business, May 1954.

We next consider the research potential of large and small firms. It is argued first that large firms have some very marked advantages in carrying out industrial research. However, it is also shown that small firms, and particularly new ones, do make important contributions to technical progress.

The effect of small firms on stability of income and prices is discussed next. It is argued that small business probably has a slight destabilizing influence on the stability of real income in a depression. The effect of small business on cylical price movements is rather mixed. In some circumstances small business tends to reduce the strength of wage-price spirals. But in other circumstances the inflationary impact of excess demand may be greater in sectors dominated by small concerns than in those dominated by larger ones.

EFFICIENCY AND SIZE OF FIRM

The relative efficiency of small and large business has been under discussion for many years but unfortunately the controversy has generated more heat than light. Many studies of the relation of firm size and efficiency have produced inconclusive results because of a lack of clarity in the statement of the problem, biases in the data and inadequate statistical analysis. Nonetheless it is possible to make a few useful generalizations about the relationship of size of firm to production cost. Before discussing those generalizations a brief review of the evidence is in order.

The data on efficiency and size come from three sources: engineering studies, cost studies for particular products, and profit data. The engineering studies are hypothetical comparisons of unit costs of production of specified products under standardized conditions in establishments of different sizes (size being measured by designed capacity expressed in units of output). Twenty such comparisons for manufacturing industries are reported by Professor Bain. In some cases Bain gives additional data on the costs of multiestablishment versus single establishment firms. It will be noted that those statements apply to hypothetical firms operating under similar conditions and with the same degree of managerial efficiency. Bain's results are summarized in table 1.

Bain gives an estimate of the capital costs in 1955 of a plant large enough to obtain all the advantages of large scale production. He also gives some indication of the rate at which costs rise as the size of plant is reduced.

Bain's data indicate that the investment required for an efficient plant varies over a wide range from one industry to another. Investment of over $100 million is required for an efficient plant in steel, automobiles, petroleum refining, tractors, and cigarettes. In shoes, flour milling, and meatpacking less than $2 million is required.

TABLE 1.—*Classification of industries according to capital requirements for a single optimal plant, and related information*

Industry	Capital requirement for 1 plant of minimum optimal scale (million dollars)	Percentage of largest submarket supplied by 1 optimal plant	Estimated shape of plant scale curve at suboptimal scales
I. Industries with very large capital requirements per plant (generally above $100,000,000):			
Steel	265 to 665	2½ to 6¼	Moderately sloped.
Automobiles	250 to 500 [1]	10 to 20	Do.
Petroleum refining	225 to 250 [2]	4½	Relatively flat.
Tractors	125	10 to 15	Do.
Cigarettes	125 to 150	5 to 6	Do.
II. Industries with large capital requirements per plant (generally $10,000,000 to $15,000,000):			
Rayon	50 to 75 acetate rayon). 90 to 135 (viscose rayon).	4 to 6	Relatively steep.
Liquor	30 to 42	1¼ to 1¾	Relatively flat.
Cement	20 to 25	4 to 5	Relatively steep.
Tires and tubes	15 to 30	1⅜ to 2¾	Moderately sloped.
Soap	13 to 20 [3]	4 to 6	Do.
Meat packing (diversified)	10 to 20	8 to 10	Relatively flat.
III. Industries with moderate capital requirements per plant (generally $2,500,000 to $10,000,000):			
Fountain pens	6	10 to 15	No estimate.
Metal containers	5 to 20	2 to 12	Do.
Gypsum products	4 to 6	8 to 12	Do.
Canned fruits and vegetables	2½ to 3	2½ to 5	Moderately sloped.
IV. Industries with small capital requirements per plant (generally under $2,000,000):			
Flour	7/10 tlo 3½	½ to 1½	No estimate.
Shoes	½ to 2	⅜ to 1⅛	Moderately sloped.
Meatpacking (fresh)	Under 1	1/10 to 1	Relatively flat.
V. Nonclassified industries (capital requirements not estimated):			
Typewriters	No estimate	10 to 30	Relatively steep.
Farm machinery	do	4 to 6	Moderately sloped.
Copper	do	10	No estimate.

[1] Supposes integration of bodies and engines, but not of maximum range of components.
[2] Includes crude-oil transport facilities (average requirement).
[3] Excludes working capital.

Source: Joe S. Bain, Barriers to New Competition: Their Character and Consequences in Manufacturing Industries (Harvard University Press, 1956), pp. 158 ff.

The increase in costs associated with reduction in plant size below the minimum for peak physical efficiency also varies widely. Thus in cement it is estimated that a plant with capacity of 70 percent of the optimum would have unit costs 5 percent higher and a plant with capacity 40 percent of the optimum would have unit costs 15 percent above those of the optimum size plant. In cigarettes, on the other hand, a plant with only 20 percent of optimum capacity would have costs only 2 percent higher than those of the optimum size plant.

This study shows that there is a certain group of industries in which fairly small firms—i. e., firms with less than $2 million of assets—can produce as efficiently as larger ones. Small firms can operate at a relatively small cost disadvantage in a somewhat larger group of industries. Similar statements can be made about the other asset size brackets.

Studies of actual costs produce broadly similar results if properly interpreted, even though reported costs in different establishments vary for a variety of reasons beside differences in the sizes of estab-

lishments.[3] Unfortunately, the available data are limited to small uncontrolled samples of establishments.

The results of comparisons of the cost of large and small establishments are of doubtful statistical significance and no great weight can be attached to small differences in costs. Most of the cost studies indicate that (1) above a certain size of establishment there are no very notable differences in costs among establishments of different size, (2) among the establishments of less than the critical size the costs tend to rise as size of establishment falls, (3) the critical size varies widely with the type of product. These results seem to be generally consistent with those obtained by Bain. It is important to note, however, that the tendencies described above apply to the average performance of firms of a given size. It often happens that the lowest cost small establishment has costs below those of at least some of the largest establishments. For the same reason the lowest cost plant may not be the largest even when there is a tendency for costs to fall as plant size increases.[4]

The statement that costs decrease up to a point as plant size increases and then level off is, I think, a fair summary of the general run of studies of plant costs. However, because there is so much controversy in this area, some additional comments might be appropriate. According to Wales' study, costs fall throughout the range of plant sizes in a substantial majority of the industries for which data are available. There are, however, a number of cases in which costs fall over a considerable range but are higher for the largest size of plant for which data were collected than for the next lower size. There are also a few cases in which the cost pattern is highly erratic. There are practically no cases in which costs fail to fall as output increases, though as noted above both the rate of decrease and the width of the declining range are variable from industry to industry. To some extent this is due to a bias in the data.

In many studies output rather than plant capacity is used as a measure of plant size. The plants with low outputs naturally tend to have lower utilization than those with high outputs so that a difference in cost due to plant utilization is attributed to a difference in plant size. But costs fall over such a wide range of outputs in so many industries that it is hard to accept the idea that the observed results are all due to bias. In view of the engineering data and the general rationale of economics of scale we must accept the notion that production costs do fall over a certain range of outputs in almost all industries.

That firms of less than minimum efficient size exist is hardly surprising. There are many industries in which the returns earned by

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[3] There are differences in treatment of accounting data, in the age and utilization of plant, in the ability of managers, in wage rates, quality of labor, and transport costs among other things. Really reliable data on the effects of plant size on costs could be obtained by careful selection of plants so as to remove the variance due to other factors. Alternatively, if sufficiently large samples of cost data were available it might be possible to obtain reliable results on a statistical basis. (Even then the data might be biased due to correlations between size and, for example, wage rates.)

[4] Summaries of the available data on the relations of plant size and cost are given in the following sources: Cost Behavior and Price Policy (National Bureau of Economic Research, 1943); P. J. D. Wales, Price, Cost, and Output (Blackwell, Oxford, 1956); R. C. Osborn, Effects of Corporate Size on Efficiency and Profitability (University of Illinois, 1950). See also Caleb Smith, Survey of Empirical Evidence on Economics of Scale, and comment by Milton Friedman in Business Concentration and Price Policy (National Bureau of Economic Research, 1955).

larger firms are high enough to permit substantially less efficient firms to exist and still earn a positive but lower profit. In others, small firms enter during boom periods (their size being limited by the availability of capital); some do not grow large enough to survive, but may still be in the industry for many years. In still others, firms of suboptimal size are constantly entering and failing so that at any point of time a number of such firms is present in the universe.

Some writers have concerned themselves with the question of whether costs turn up as size of plant increases beyond a certain point. There is little evidence in the cost data on that point. As noted above there are only a few cases in which costs for the largest size of plant are higher than for smaller ones and there is doubt about those. But there is less reason to expect to find plants of too large a size than to find plants that are too small. Small firms may not be able to build plants of efficient size. But large firms are certainly able to refrain from building plants that are too large for efficiency (unless their managements suffer from megalomania). Not many cases of costs rising with output have been encountered but that does not prove that plant cost curves are not U-shaped.

However, that observation has little economic significance. It does not imply that firm cost curves are U-shaped since large firms can be and usually are multiplant firms.

The data on plant costs indicate that a concern cannot be efficient unless its volume justifies building a plant of a certain minimum size. On the other hand, it has often been argued that "large" firms tend to be less efficient than medium-sized firms. The theoretical reason given for that assertation is that the managements of very large firms become unwieldly and bureaucratic. The apparent success of decentralized management in some of the very largest firms casts considerable doubt on the validity of the bureaucracy argument. The empirical evidence is not very satisfactory, but it does not lend any positive support to the idea that after a point costs tend to rise with size of firms.

The most readily available data for comparison of the performances of large and small firms are profit records. Profit records represent actual, not hypothetical performances. Records for either identical firms or random samples of firms are available for long periods whereas most cost studies cover only a single year. On the other hand, profit records are even more distorted by differences in accounting procedures than are cost data. At the same time they reflect some factors which do not represent differences in efficiency. A large firm may make larger profits than a small one if it can obtain concessions (not related to cost) from suppliers through large scale purchasing. Similarly, a well-known name may bring a premium price even though the product is physically no different from another bearing a relatively unknown name.

While the profits of large firms are sometimes enhanced by their market power, the small firms may have higher returns because of relative newness. The smaller firms are likely on the average to be newer than the larger ones simply because it takes time to grow large. Even within a single four-digit census industry different firms have different product mixes. A relatively new firm, if it is successful, tends to have plant and equipment designed to supply the products which

currently yield the highest profit margins and for which demand is growing rapidly (so that plant can be fully utilized). Older firms will tend to have facilities for product lines which yield lower margins. They may make just as good a return as the others on the new lines but a lower average return. In the same way older firms may have their plant in higher cost areas than new firms.

Moreover, the use of profit data for identical firms over a considerable period of time leads to a bias in favor of small firms. There is considerable turnover among small firms and the ones which survive for a number of years are likely to be those with the best profit records. The profit records of a set of firms which have remained in business for 10 years or more are likely to be better in any given year than the records of all the small firms in existence in a given year.

The Federal Trade Commission has published data for the comparison of the profits of the largest firms in each of 23 selected industries (mostly four-digit census industries) with the profits of smaller firms.[5] The smaller firms included vary widely in both absolute size and in size relative to the size of the leaders.

In the years 1947–52 profit rates of the largest firms were higher than those of the medium-size and small firms in 15 industries. The relatively small firms had higher returns in six cases. In two cases the rates of profit were practically the same. In no case, except possibly that of steel, was the performance of the smaller firms better than that of the large ones by more than a very small margin.[6]

The requirement of the FTC that the firms should have been in business at least since 1939 makes it unlikely that any firms with very high cost due to inadequate scale are in the sample. The profit data cannot be used to identify the minimum size of firm required for efficient production in the industries included.

The profit data are not conclusive evidence, but they do not lend any support to the idea that diseconomies of scale are important. The samples are small and profits are influenced by many factors beside size; it is therefore possible to imagine that large firms are subject to diseconomies of scale which are concealed by other factors, but there seems to be no basis for correcting the observed results for such other factors. Since there is very little other evidence in favor of the hypothesis that the largest firms tend to suffer from important diseconomies of scale we must, I think, work on the assumption that diseconomies of scale are not important.

Combining the evidence of the three types of studies described above we may reach the following conclusions about the relation of size and efficiency in manufacturing: (1) In each industry some minimum size

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[5] Federal Trade Commission, Report on Rates of Return (After Taxes) for 516 Identical Companies, 1940, 1947–52 (1954), pp. 12–14.

[6] The data cited are postwar data. The FTC data also cover 1940 and give results similar to those for the postwar years. They are not entirely consistent with prewar data from Statistics of Income which show that for total manufacturing from 1931 through 1934 corporations in $50 million and over asset size class had higher returns on net worth than those in smaller size classes. (Their advantage was declining after 1932 however.) From 1935 on through 1946 corporations in the $100 million and over class had lower returns than those in much smaller size classes. After 1937 that was also true of corporations in the $50 to $100 million class.

Not much significance can be attached to data for the war years, but the record of the years 1936–41 does call for explanation. The FTC data are for individual industries. The Statistics of Income data cover all manufacturing. The apparent discrepancy between the Statistics of Income data for all industries and the FTC data appears to be due to differences in profit levels between industries with different characteristic firm size. Obviously no significance can be attached to comparisons of firms of different sizes when the firms are in different industries.

of firm is required in order to exploit the economies of scale. Firms below that size are less efficient than those above. The loss of efficiency tends to increase as size of firm is reduced. (2) The amount of assets required for an efficient firm of minimum size varies widely from industry to industry. In some industries a few thousand dollars may suffice—in others $50 million or more may be required. (3) There is no indication that efficiency decreases when firms grow beyond the minmium size required for efficiency. (4) Those conclusions apply to statistical averages of the operating results of firms of various sizes. Some individual firms of less than optimum size may have lower costs than larger firms because of superior management or other factors affecting costs which are not related to size.

In general we have to conclude that the efficiency of our economy would not be improved directly (though some indirect effects are discussed below) by any general reduction in the average size of firms. Moreover, it appears that a substantial proportion of output is produced by firms which are of less than optimum size to a significant extent. Bain estimates that from 10 to 30 percent of the output in the 20 industries he studied was produced by firms of less than optimum size. The percentages so produced are probably even higher in some other industries not included in his sample. They are almost certainly higher in trade and service.

While a certain amount of manufacturing output is produced by firms of less than the minmium efficient size, it is also true that a substantial proportion is produced by concerns of much larger than the minmium efficient size even after allowing for such social economies of multiplant operation as may exist. If it were possible and desirable on other grounds, little or no technical efficiency would be lost by the breakup of some of the largest firms into smaller units. But, since such a policy would not materially improve technical efficiency, it can only be recommended on some other ground.

In some branches of retailing and the service trades there appear to be very large numbers of firms which are of less than the minimum size for efficient technical operation. There are a number of reasons for the continued existence of large numbers of firms of less than optimum size in these fields.

First, product and service differentiation, particularly when due to location, may be a real economic justification for the operation of small but high-cost units. If consumers are willing to pay to have stores within a short distance of their homes, it cannot be said that those stores are inefficient even if unit costs in those small stores are higher than in larger but more distant units. The same argument applies to small units offering specialized service or late opening hours. If small high-cost retail units are able to make a profit without artificial aid from resale price maintenance or price maintenance agreements it cannot be said that they are inefficient even though their costs are higher than those of high-volume retailers. The same is true for a wide range of service establishments, including those catering to producers' rather than consumers' needs.

Second, relatively small capital is required to enter, and many people believe at least that little specialized knowledge and training is required to operate a retail grocery or restaurant. As a consequence these fields are chronically overcrowded. There is a high failure rate but the places of the losers are always taken by others.

Third, in some distributive industries price maintenance agreements and other manufacturers practices (including outlet financing) may make profitable operation possible even though the available business is divided among too many firms.

Fourth, resale price maintenance legislation has (in the past at least) prevented large-scale retailers from taking full advantage of their lower costs.

From a technical efficiency point of view there are no doubt too many small firms in the trade and service field. The rapid growth of supermarkets in the past two decades suggests the scale of economies that can be achieved by new retail technology requiring, however, a larger investment and a higher level of managerial talent than is available to the typical neighborhood retail store.

SMALL FIRMS AND COMPETITION

Small firms play a vital role in the maintenance of active competition, and that is perhaps their most important role in the economy.

Nearly everyone agrees that competition is essential if a free-enterprise economy is to function properly. As J. M. Clark put it, "The economic benefits (of competition) may be listed under four heads":

> 1. We expect competition to furnish incentives to increased productive efficiency that are more compelling than the interest a monopoly has in improving its processes. To get the benefit of this incentive, where progressive increase in efficiency depends on expensive research and experimentation, requires that business units of large size shall still feel this competitive incentive.
>
> 2. We expect the rivalry of independent producers to give us an ample variety of types and qualities of products to choose from, including new varieties. This competition in quality implies that the offerings of different producers shall be distinctive; that is, they shall be in some respect unique. And I would contend that this uniqueness is a competitive fact, not a monopolistic one, so long as others are free to imitate or not, whichever seems to them more advantageous.
>
> 3. We want the gains from all this to be diffused as rapidly as consistent with business enterprise having the incentives to the necessary pioneering. * * *
>
> Gains may be diffused to customers in lower prices, or they may go in paying standard rewards to added capital that is used in making improvements, but historically the greater part of the diffusion has been to workers in higher real wages. And this is as good a way of diffusion as any other. * * *
>
> 4. Competition frees the customers, and others who deal with business, from dependence on the goodwill or benevolence of business for the diffusion of the gains it makes, giving them instead the leverage that comes from a chance to choose between rival offers in a field that is open to all who see a chance to make some net gain. This does not deprive business of all discretion as to price and policy, but it keeps it within the limits that the rival offers set.[7] * * *

Traditionally it has been supposed that competition is effective only when a large number of firms are competing with one another in each market. If we center attention on the conditions of "perfect competition" as described in the elementary economics textbook that is true. If on the other hand we are satisfied with a degree of competition which is sufficient to provide adequate incentives for research and investment directed at cost reduction and product improvement and which holds profits to "reasonable" levels, a very large number of firms may not be necessary.

The success of large-scale enterprise in America in reducing costs and developing new products and the obvious intense rivalry among

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[7] John Maurice Clark, Why Seek Competition? And How? in C. Lowell Harriss (edition), Selected Readings in Economics (Prentice-Hall, 1958), pp. 117 ff.

some groups of large firms has led some writers to take the view that effective competition can generally be achieved with no more than 3 or 4 large firms in each market.

That point of view, however, is as extreme as the view that competition cannot be reasonably effective without a very large number of competing firms. In the following section it is argued that competition is a more effective regulator of profit margins in industries with a low or moderate degree of concentration than in very highly concentrated industries. Competition is also a more effective regulator of profit margins in industries in which entry barriers are not too high than in those which are very difficult to enter. Those conclusions imply that small- and medium-sized firms do play an important role in making price competition effective.

In a subsequent section it is shown that the presence of actual "fringe competitors" or potential new entrants increases the incentives of large firms to reduce costs and improve products.

Concentration, entry, and profits

We get some notion of the effects of concentration on profits from theoretical arguments and from comparisons of highly concentrated industries with less concentrated ones.

In general we would expect to find that the firms in industries dominated by a very small number of firms will earn rates of return above those earned in industries with a lower degree of concentration. That tendency will be greatly strengthened if it is difficult for new firms to enter the industry (because of large capital requirements, or because large promotional expenditures are required to break down existing customer attachments, or because of artificial barriers based on patents or control of raw material).

We expect such a result on the ground that each of a small group of firms will recognize that it cannot hope to take much lasting business from the others by price cutting because the others are likely to retaliate. But a monopolist or a small group of firms dominating and industry cannot in the long run charge prices above the level at which new firms will be attracted into the industry.

Profit margins tend to be low therefore in industries with a low degree of concentration because of price competition among existing firms. Margins tend to be highest in concentrated industries which are difficult to enter.[8]

Of course, these are only tendencies which are often obscured by other factors. Rapidly growing industries tend to have fairly high profits regardless of the competitive situation. The firms in those industries always have satisfactory utilization of capacity. On the other hand, declining industries or industries faced with competition from low-cost substitute products have low margins because of under utilization and/or low prices. A variety of other factors may influence profit margins but here we are interested in the general effects of differences in competitive structure.

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[8] In some industries dominated by a small number of firms price competition may be replaced by competition in product variation. Nonprice competition is more attractive to most firms than price competition because product modification cannot be matched by a rival so quickly as price reduction. Such competition does not in general lower profit margins more than temporarily. It is more likely to prevent prices from falling as costs are reduced.

The general theoretical argument just stated is given empirical support by a study of profit rates, concentration, and entry by Bain. Bain found that "for a 40-industry sample there was a statistically significant difference in the period 1936–40 between the average profit rates for industries in which 8 sellers controlled more than 70 percent of industry sales and for industries in which 8 sellers controlled less than 70 percent." In a later study Bain attempted to assess the importance of entry and concentration using postwar data. The results confirmed the earlier conclusion as to the effect of concentration but also indicated that entry barriers have a good deal of importance. The results are summarized in tables 2 and 3.

The theoretical argument and Bain's empirical findings support the view stated above that profit margins approach the competitive norm as concentration decreases and entry into an industry becomes easier. Thus the allocation process is improved if firms do not exceed the minimum size required for efficient production.

TABLE 2.—*Distribution of industries by degrees of "seller concentration" and by industry-average profit-rate classes,*[1] *1936–40 and 1947–51*

[Number of industries]

Industry-average rate of profits (after income taxes) on equity (percent)	Seller concentration 1936–40 [2]		Seller concentration 1947–51 [2]	
	High	Moderate to low	High	Moderate to low
25 and over	1			
20 to 24.9	1		2	
15 to 19.9	3		5	
10 to 14.9	3	1	5	6
5 to 9.9	4	4		2
Under 5		3		

[1] Industry-average profit rates are simple averages of the profit rates of dominant firms.
[2] High seller concentration—8 sellers control more than 70 percent of sales; moderate to low seller concentration—8 sellers control less than 70 percent of sales.

Source: Bain, op. cit., p. 197.

Concentration and investment incentives

Competition is supposed to provide business concerns with especially strong incentives to investment in new equipment in order to reduce costs, improve old products, or introduce new ones. Even without competition, managements are prepared to invest capital to reduce costs or improve products in order to widen profit margins or expand their sales. But a firm faced with competition has stronger investment incentives. If it reduces costs or improves product it cannot only expand the market for its products but it can take business from its rivals. Moreover, even if a concern's management were content with its profit position it would have an incentive to reduce costs and improve product to avoid losing its markets to its rivals (or being forced to accept low profit margins to maintain its sales).

In principle even a very small number of rivals may provide one another with strong incentives for cost reduction, product improvement, and development of new products. In practice it is easy to observe many industries dominated by a small number of large firms who are engaged in intense rivalry in terms of cost cutting and product improvement.

TABLE 3.—*Distribution of industries by degrees of "barriers to entry" and by industry-average profit-rate classes,[1] 1936–40 and 1947–51*

[Number of industries]

Industry-average rate of profits (after income taxes) on equity (percent)	1936–40 entry barriers			1947–51 entry barriers		
	Very high	Substantial	Moderate to low	Very high	Substantial	Moderate to low
25 and over	1					
20 to 24.9	1			2		
15 to 19.9	3			2		1
10 to 14.9		3	1	1	6	4
5 to 9.9		4	4			2
Under 5		1	2			

[1] Industry-average rates are simple averages of the profit rates of dominant firms.

Source: Bain, op. cit., p. 198.

However, the tendency for oligopolies to generate competitive cost cutting may be frustrated in a number of ways. Formal or informal market-sharing agreements obviously weaken the drive for cost cutting. Cost reporting and standardization of cost accounting reduce the chances of concealing cost reductions and therefore the risk that a rival is stealing a march. Any firm which controls key patents or resources can protect itself against price cutting by rivals by withholding licenses or resources. Its fear of aggressive action is reduced, and the possible gains from aggressive action are reduced for the others.

Industries dominated by a small number of large firms may be as progressive as any other, but that is not necessarily the case. We noted above that the incentive for cost reduction in such industries depends in part on each firm's fear that its rivals will gain a cost advantage and force it to choose between low (or even negative) profit margins and a loss of market share. In industries with very few firms the resources of each firm are generally large. Firms which wish to pursue a conservative investment policy are in a position to refuse to take the risks involved in investing for relatively low payoffs. If their rivals should gain a cost advantage their resources are large enough to permit them to take losses or low margins for a time and still catch up. It is possible that all the firms in the industry would take the same conservative attitude with the result that the industry would make relatively slow progress in cost reduction. That possibility is reinforced by the fact that market sharing agreements are more easily maintained when only a few firms are involved.

The possibility that all firms will be prepared to accept a conservative investment policy and an attitude of mutual nonaggression becomes smaller as the number of firms grows larger. Even when a few large firms produce a high proportion of the output in an industry the presence of a number of aggressive small firms prevents the large firms from resting on their laurels. Thus the small- and medium-sized firms may make a much more important indirect contribution to progress than their size or direct contribution to development of new techniques or products would indicate.

The role played by Sylvania in speeding up the development of the fluorescent lamp and the role of several small companies in the introduction of small radios are only two of a number of examples of the contributions of small firms. In these cases the small firms

actually got ahead of their larger rivals. But even when they do not succeed in taking business from the large firms the small firms provide incentives to the large ones by trying to increase their market shares.

It is important to note, however, that fringe competitors contribute to progress in that way only when they are strong competitors. They will not be effective unless their scale of operations is large enough for reasonable efficiency and unless their financial resources are adequate to permit them to take some risks.

Subject to that qualification then small firms play an important competitive role even in industries dominated by much bigger ones. In addition, of course, there are many industries in which most of the output is produced by small firms who provide competitive incentives for one another.

RESEARCH AND INNOVATION

Our economy's capacity to produce goods and services at any one moment depends on the amount of resources and the technical knowledge available and the efficiency with which those resources and techniques are utilized. But the rate of increase in our capacity to produce depends on the rate at which we accumulate resources and on the rate of development and application of new techniques of production. The rate at which new techniques are developed and applied depends on many factors but it can be influenced to an important degree by the size distribution of business firms.

In this section we shall consider the influence of firm size on the ability of firms to undertake research activities and to apply the results in practice.

It appears to be the case that large firms are in a distinctly better position to support systematic research activities than small firms. That is true for a number of reasons.

The strongest of these reasons is the effect of size on the pooling of risks. There are many calls on the financial resources of firms to justify the allocation of additional funds to research, and the management must suppose that the prospective returns from additional research will be greater than those available from other types of investment. As the proportion of resources devoted to research increases, the return required to justify additional research expenditure will increase. Even if there were no risks, small firms would not find it profitable to spend a much larger proportion of investable resources on research than large firms. If a large firm and a small firm both spend the same proportion of resources on research, the large firm can support more projects than the small firm. Since results of research are very uncertain, the small firm with a small absolute research budget takes a greater risk about the outcome of research than a large firm with a large budget. When a sufficient number of projects can be undertaken some are bound to succeed and pay off enough to compensate for the failures. When only a few projects are underway there is a chance that the firm will get nothing for its efforts.

Of course, some firms with small budgets will be successful and obtain a very high return on their investment, since the success is not affected by failures in other projects. But most firms have an aversion to making "long shot" investments. As a result, small firms are likely to hold down their research budgets because investment in research is too risky.

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In addition, most small firms are in a riskier position than large firms on other grounds. In general they have lower profits and less access to outside funds. Moreover, they are more dependent on demand in particular localities or for a small number of products than large firms operating over a wider range of locations and products. The general risk position of small firms makes them still less able to gamble on research.

A second factor working against small firms is the existence of economies of scale in research itself. Laboratories require complex equipment which will not be fully utilized unless large numbers of research workers share its use. In addition, there is an interaction between research workers in different fields or on different projects which cannot be exploited in a small laboratory. This is not to suggest, of course, that much useful work cannot be done in small laboratories, but there are some reasons for thinking that large laboratories have an advantage over small ones.

These disadvantages can be overcome to a considerable extent by contracting out research to universities or to firms specializing in research work.

A third advantage for large firms arises from the diffuse nature of the benefits of research. The outcome of scientific research is, in the nature of the case, unpredictable. Investigations aimed at the improvement of a particular product or process may produce results with applications to quite different areas. A large firm with a diversified line of products can view that situation with equanimity. It has a good chance of finding an application for whatever turns up. A small one can use only a small part of the knowledge gained from research.

This disadvantage is, of course, of much greater importance in basic research than in enginering work with a narrow focus.

The advantages of large firms in research activities are reflected in the results of the 1953–54 study of industrial research and development activities.[9] The survey showed that the percentage of companies conducting research and development (RD) programs rose steadily with company size. Only 8 percent of manufacturing firms with less than 100 employees had them while 94 percent of those with over 5,000 employees had RD programs. Manufacturing companies with over 5,000 employees paid for 66 percent of RD work but employed only 40 percent of the workers in manufacturing. In contrast firms with less than 500 employees accounted for only 14 percent of the RD cost thought they employed 35 percent of all workers in manufacturing. Government financed research is even more highly concentrated among the large firms.)

It is clear enough that large firms have a distinct advantage in carrying out industrial research and development. But that is not the whole story. Industry does relatively little basic research. To a large extent industrial research exploits scientific principles developed elsewhere. The existing stock of scientific knowledge at any one moment contains an enormous reservoir of potential industrial applications. Any single research organization works on a limited number of those possibilities—the chosen ones depending on the inter-

[9] National Science Foundation, Science and Engineering in American Industry (U. S. Government Printing Office, 1956).

ests and vision of the firm's management and research directors. Certain possibilities wil be ruled out by a particular firm as impractical, outside the range of the firm's interests, as having insufficient potential markets. In pursuing a given line of research and development, any one individual or any small group is likely to make very serious errors in judgment as to the practicality or market potential of a given research proposal. Large research organizations may be more efficient than small ones. But from another point of view, a good deal may be lost by having a heavy concentration of research and development activity in the hands of a relatively small number of firms. (Of course, it is possible for a large firm to decentralize its research and development activities and allow a great deal of independence to research directors, and even to encourage internal competition, but that is not always done.)

The research activities of small and medium-size firms may make an important contribution to our total resources by insuring that the development possibilities overlooked or neglected by larger organizations are tried out and exploited.

Finally it is important to note that much progress in industry takes place without formal research. Many useful developments in technology are worked out by production personnel with relatively little formal research expenditure. Similarly new applications of existing knowledge may sometimes be made without much formal research. In some cases foreign patents may be applied in this country with relatively little further work. Finally minor modifications in products may make them cheaper and open out new market possibilities.

In all these cases the very large firms have relatively little advantage over small or medium-size firms provided that resources are adequate for the necessary investment.

To sum up then, small firms can and do make significant contributions to industrial research activities even though large firms account for a very high proportion of industrial research and development activities.

Their contribution takes the form of (1) exploiting some possibilities neglected by larger research organizations and (2) of a large variety of technological developments in production methods and product design which are carried out without the use of a formal research organization.

Finally, it should be noted that in recent years a number of relatively small firms have appeared where principal activity is research and testing for the account of others.

SMALL BUSINESS AND PRICE STABILITY

We have already seen that small business has a significant influence on the relations among prices, costs, and profits. Now we must turn our attention from the level of prices in relation to costs to the movement of prices and costs over time. The effects of small business on price movements are significant and complex. In some ways small business tends to intensify the inflationary tendencies in our economy, in others to weaken them.

In analyzing the influence of small business on price stability, it will be useful to distinguish between the role played by small busi-

ness in industries in which relatively small firms predominate (e. g., textiles and apparel) and in industries in which most of the output is produced by a relatively small number of large firms.

We can compare the movements of prices in industries with many small firms with price movements in highly concentrated industries in which small fringe competitors remain a factor.

In addition it is necessary to draw a distinction between price movements induced by changes in aggregate demand (relative to industrial capacity and labor supply) and those induced by increases in wage costs resulting from trade union action and other forces affecting costs. Such a distinction is somewhat artificial. The extent of the influence of trade unions on wages is influenced by the level of unemployment and capacity utilization in the economy. We cannot ordinarily say whether any particular price increase is due to "cost push" or "demand pull"; in most cases we have to suppose that actual price increases are due to the interaction of both factors. Nonetheless, the two factors are distinct from one another, and different sectors of the economy react differently to the movements of demand and the pressures on wages exerted by trade unions.

Let us first compare the effect of changes in demand on price movements in industries with many small firms with the effect of demand changes on prices in highly concentrated industries. It seems fairly safe to say that prices of goods produced in industries in which many small firms compete in the same market, e. g., textiles and apparel, are more volatile than the prices of goods in more highly concentrated industries.

At any one moment the producers in a competitive industry are producing as much as is profitable, in view of their costs at the existing price. If demand remains unchanged, any producer can sell more by increasing output and shading his price a relatively small amount. When an increase in demand occurs, price will be marked up because no additional output is available at the existing price. Price will have to rise until demand and supply are once again in balance (either through contraction of sales as a result of the price increase or because the higher price induces firms to increase output by working overtime or using obsolete plant).

When demand declines, prices will move downward, but initially, most firms will find that they are selling less than they are willing to supply. Further shading of prices has to continue until supply and demand are once more balanced by increases in sales or reduction in output.

When there are many small firms there is no reason for any one to refrain from price cutting as long as there is excess supply, since competitors may do so anyway; if they are not, the firm cutting the price would take a little business from each of a number of firms without influencing the action of any of them.

In such industries prices will move upward and downward with short-run changes in demand. The range of movement will be sufficient to keep supply and demand in balance. Over longer periods of course, supply can be increased or decreased by the construction of additional plant or the abandonment of old plants. The adjustment of capacity places a limit on the extent to which price can deviate

from average cost in efficiently operated new plants, except for short periods.[10]

Prices of the products of highly concentrated industries are much less responsive to short-run movements in demand than prices in highly competitive industries. When demand declines managements tend to avoid open price cutting because each firm expects that others would retaliate if it cut prices. On the other side, when demand increases, large firms often refrain from raising prices even though they could sell more than they can produce at the existing price.

It is easy to see why large firms tend not to cut prices when sales are low. Unless sales are very responsive to price, it will be unprofitable for any firm to seek more volume by cutting prices when its rivals are fairly sure to retaliate. In order to insure price stability when sales are declining it is necessary to refrain from raising them when sales are rising. In addition, large firms are usually sensitive about their share of the market and are therefore unwilling to risk the loss of customer goodwill by frequent price changes. At least some large firms are sensitive to customer relations and political considerations. Finally, if prices are raised during periods of high demand, unions may attempt to capture some of the increased profits in the form of a wage increase which cannot be reversed if prices should fall.

When there are only a few large firms in an industry, the relation between prices and direct operating costs tends to be very unresponsive to changes in the relation between demand and capacity. However, when an industry is fairly heavily concentrated, but contains a certain number of small firms which together account for an appreciable proportion of output, the picture may be somewhat different. When demand declines, the smaller firms may lead the way in cutting prices (either openly or more commonly through various types of unannounced discounts and other concessions to buyers). They tend to do so partly because each small firm can gain a substantial percentage increase in volume by taking a small percentage of sales from the larger ones if they can cut prices for a time without retaliation. The small firms may lead prices down, eventually forcing the large ones to follow them. To the extent that prices decline when demand declines in the industry, they will also tend to rise when demand increases.

In general, then, it can be said that as the proportion of an industry's output produced by small firms increases, the tendency for prices to vary with demand will also increase. That proposition is, of course, only a broad and loose generalization. Price movements are influenced by many other aspects of industrial structure besides the size distribution of the firms in the industry.

If demand moves upward and downward (relative to capacity) prices (in relation to direct costs) will tend to move upward and downward as well. The variation in both directions will tend to be larger in industries in which a large share of output is produced by small firms than in those in which most of the output is produced by a few large ones.

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[10] It should be noted that in localized industries like trade and service and some branches of manufacturing only a few firms may compete in any one market even though most of the firms are small.

If demand fluctuates, the prices in industries with a low degree of concentration will fluctuate more widely than those in highly concentrated industries, but over the cycle difference in the amplitude of price fluctuations need not affect the average level. It cannot therefore be said that the small-business sector intensifies the secular upward trend of prices in any direct way.

However, the fluctuations in prices may have an indirect influence on the long-term trend of prices. Price increases during boom periods raise the cost of living. Increases in living costs intensify demands for higher wages. An increase in wages granted during a boom is not likely to be reversed even when demand declines. Wage increases tend to be built into the cost level and prevent prices from falling as far during slack periods the they rise during booms and price fluctuations may not cancel out over the cycle. The temporary price increase in each boom has a permanent effect on wages and costs which contributes to the upward drift of prices.

The competitive structure of an industry also influences the industry's response to trade-union wage pressures. There is some reason to believe that managements in highly concentrated industries can grant wage increases with less fear of loss than those in less concentrated industries. Profit margins in highly concentrated industries seem to be limited by the possibility that customers will supply themselves, that firms in related industries will enter the field or that small firms will expand by giving price concessions if profit margins are too wide. In some cases, margins may be limited by political considerations or by a general belief that "unreasonably" high margins will sooner or later attract competition in an unspecified way. In those circumstances, an increase in wage costs can be reflected in prices since it affects potential competitors in the same way as existing firms. Moreover, trade unions in these industries try to obtain similar concessions from all firms whether there is industrywide bargaining or not. Finally, there seems to be a general belief that sales are not very sensitive to industrywide price changes. Under these conditions managements may feel that they can grant wage increases and raise prices without losing business.

In less concentrated industries the situation is different. If wage increases are granted they cannot be reflected in prices by the decisions of a few managements. Wage increases will lead to price increases only because the increase in costs induces some firms to contract output so that demand exceeds supply at the old price. The amount of price increase which results depends on the sensitivity of output to prices and the sensitivity of sales to prices in the industry as a whole. Individual managements cannot judge those factors very well. As a consequence it is more risky for managements in highly competitive industries to grant wage increases than for those in highly concentrated ones. That risk is increased by the fact that there may be more unorganized firms in an industry containing many small firms than in an industry with a few large ones.

Those considerations suggest that the "cost push" element making for inflation may be somewhat less powerful in highly competitive industries than in highly concentrated ones. However, there appear to be a number of industries in which trade-union pressures on wages are very effective in spite of the large number of small firms in the

industry. Construction is the most impressive example. Thus, small firms may provide some resistance to "cost push inflation" but they do not always do so. Moreover, comparisons between wage and price movements in competitive and highly concentrated industries have to be made with care because other factors beside the degree of concentration are important.[11]

To sum up then, prices fluctuate most in some manufacturing fields in which small business predominates and these price fluctuations may contribute indirectly to the long-term upward drift of prices. On the other hand, these same highly competitive sectors may resist the cost-push component of inflation somewhat more strongly than industries dominated by a few large firms.

Neither of these considerations relates to a dominant force causing inflation, and it is important to take account of numerous other factors when judging comparisons of wage and price movements in industries with different competitive structures.

SUMMARY AND CONCLUSIONS

Small business influences the functioning of our economy through its effects on (1) technical efficiency, (2) price competition and investment incentives, (3) research and development, (4) the stability of production and prices. Our task now is to summarize our results on each of those aspects of the problem and then develop some conclusions on the role of small- and medium-size firms in the American economy.

In the discussion of firm size and technical efficiency we argued that (1) there is a minimum efficient size of firm for each type of product, and (2) the minimum efficient size (in terms of amount of assets, number of employees, or share of relevant market) varies widely from industry to industry, (3) once the minimum efficient size is reached further increases in scale of firm are not likely either to add nor detract materially from efficiency, (4) an appreciable proportion of manufacturing output is now produced by firms of less than minimum efficient size (the proportion so produced is probably larger in trade and service), (5) on the other hand, much of our manufacturing output is produced by firms which are far larger (in terms of their share of particular product markets or the range of products they produce) than is required for technical efficiency.

In the field of competition and resource allocation we concluded (1) that on traditional resource allocation grounds it is desirable that profit margins should be just high enough to attract capital and provide adequate incentives for investment and research, (2) that (subject to the qualifications below) an increase in the number of firms producing a product tends to reduce profit margins and make them approach the competitive norm, (3) that end is also served by reducing barriers to entry into any product market, (4) from a competitive

[11] Some writers (such as J. K. Galbraith) have tried to draw conclusions about the nature of the inflationary process by comparing wage and price movements in industries like textiles and apparel with those in steel.

A comparison of the behavior of wages and prices in textiles or apparel on the one hand and in steel on the other reflects more than differences in concentration. It also reflects (1) the relatively weak organization of textile workers in the South and the importance of immigration as a source of labor in apparel, (2) the relatively low rate of growth of demand for textiles and apparel, (3) the influence of regional changes in the location of textile manufacturing on capacity utilization, and (4) the influence of rising capital costs on prices in so-capital-intensive an industry as steel.

point of view it is desirable to have few firms larger (in terms of share of product market) than the minimum efficient size and none of less than that size.

Competition also plays an important role in connection with incentives for investment and innovation. We have argued that there are strong incentives for cost-reducing investment and innovation even in very highly concentrated industries. But the continued operation of those incentives would not be guaranteed if the whole manufacturing sector consisted of a few hundred very large firms. If the management of every large firm could feel that it resources permitted it to be a follower rather than a leader the incentive to innovate would be greatly reduced.

It is not necessary to have very large numbers of firms competing in order to provide adequate incentives for investment and innovation. But the adequacy of investment incentives is not guaranteed in industries dominated by a very small number of firms.

We have argued that large firms have a distinct advantage in conducting industrial research but that small firms can make significant contributions to technical development. In this connection new firms play a particularly important role.

Finally, we saw that small business tends to have a destabilizing effect on income once a depression has begun. Its effects on inflationary processes are mixed.

When we attempt to take all those considerations into account at once it is apparent that an optimal industrial structure is not one in which all firms even in a single industry are cast in the same mold. Too many diverse considerations have to be reconciled for that. There is a place in an efficient, progressive economy for the very large industrial firm capable of supporting large-scale research activities and able to venture millions of dollars on the success of a new product or process. But we would be unwise to entrust our fortunes wholly to 3 or 4 such large firms in each industrial sector. For all their large resources, and even when they have adequate incentives, large firms may and actually have neglected to develop important processes and products which smaller firms have exploited.

Moreover, while there is no doubt that large firms have adequate resources for research and for the investment required to put the results into practice, their incentive to take the necessary risks is not so securely based. It is true that rivalry among a few large firms provides more incentive for a progressive investment policy than is sometimes thought to be the case. But the rivalry among very large firms might very well atrophy (or be reduced in intensity by various types of market sharing) without the constant threat of aggressive behavior on the part of small- and medium-size rivals hungry for a larger market share.

Finally, as we have seen, a high degree of industrial concentration is likely to lead to profit margins which are unnecessarily high. Such high margins can result in an inefficient allocation of resources particularly when some sectors are more competitive and have lower margins than others. The presence of small firms helps to hold profit margins to reasonable levels.

These considerations imply that we ought not to view with equanimity any tendency for the share of industrial activity controlled by the very largest firms to increase. (It would take us far afield to enter

the controversy over the trend of industrial concentration.) Indeed there are a number of sectors of manufacturing in which the share of the largest firms is clearly too large.

But the other end of the size distribution in manufacturing is not entirely satisfactory either. As we have seen, most manufacturing industries contain a fringe of firms which are too small for efficiency. They are obviously not an asset from any point of view. They cannot be very progressive because their profits are low. They cannot compete and lead prices down because they exist only by virtue of the high margins earned by more efficient firms.

Even firms large enough for technical efficiency may not be fully effective competitors. If a firm is to make a real contribution to progress and effective competition it must be large enough to finance some research and development activities, to take advantage of economies of scale in production and to raise capital fairly easily. The size of firm required from that standpoint varies with the industry. But there are some industries in which a very small firm would be technically efficient but in which promotional and financial considerations may dictate a larger size of firm. In those cases 1 firm with 5 percent of the industry sales may do more for progress and effective competition than 5 firms with 1 percent shares.

In the trade and service fields entry on a small scale tends to be excessively easy. This is likely to lead to too many small firms. In some branches of trade and service at any rate there ought to be fewer very small firms and more firms of a somewhat larger size. The latter would still, of course, be very small by industrial manufacturing standards.

When it is not necessary for a new firm to be a small firm it is certainly true that most new firms are small firms. New firms perform a number of important functions in the economy.

A good many new firms are launched because the owners have developed a new product or service (or an improvement in an old one) or because they have a new approach to marketing. The possibility of forming new firms gives a large number of individuals an opportunity to back their own ideas with their own resources. The economy thereby gets the benefit of many new developments which might not pass the scrutiny of a chain of division managers, plant managers, comptrollers, and budget committees in a large corporation. At the same time new firms provide an outlet for individuals with ideas and the courage of their convictions whose talents might not be fully employed in a large organization.

In addition the formation of new firms is a means by which capital and particularly equity capital is channeled into rapidly expanding sectors of the economy Since some individuals are more ready to take an equity in enterprise which they control, new firms constitute an important supplement to the equity capital available through sale of securities or earnings retentions by existing firms.

8. "ADEQUACY" OF FINANCING FACILITIES FOR SMALL BUSINESS: SOME CONCEPTUAL PROBLEMS [1]

In appraising the adequacy of financing facilities for small business, there is first of all the problem of what we mean by "adequacy." This paper attempts to provide a reasonable criterion of adequacy. Although the definition offered must necessarily be too broad and general to serve directly as a guide to statistical studies, it may be helpful in appraising the results of these studies and in placing them in broader perspective.

In very general terms, the following definition of adequacy might be acceptable: Financing facilities for small business are adequate when there is equality of treatment as between small business and large business. Such a definition in terms of equality of treatment should hardly be taken to imply, of course, that a small firm has any special claim upon financial resources simply by virtue of its size, or that such a claim can be based on grounds of "need" without reference to the firm's ability to contribute to the national product.

Equality of treatment must be interpreted not only in terms of equity or fairness, but also in terms of the firm's efficiency and prospective economic growth. Obviously, firms that are not soundly managed, whether large or small, are likely to waste or misdirect financial resources.

When we move on, however, from this generalized definition of adequacy to the task of devising a yardstick for measuring the actual availability of credit and capital to small business, we run into a veritable jungle of conceptual and technical difficulties. To minimize these difficulties we shall rely on commonsense and avoid theoretical refinements.

First of all, it seems useful to break down the problem of adequacy of financing into the two broad categories of debt and equity capital. In each category we consider what may be involved or implied by the general principle that adequacy requires equality of treatment between small and large firms.

ADEQUACY OF DEBT CAPITAL

In the case of debt capital, there is a problem of interest rates and a problem of credit availability.

Interest rates

Does equality of treatment imply equality of interest rates? The position taken in this paper is that equality of treatment (that is,

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adequacy) is compatible with inequality of rates so long as the rate differentials reflect only (1) differences in lending costs and (2) differences in risk.

(1) The cost (per dollar amount loaned) of lending to a small business generally is greater than the cost of lending to a large one, and this is one of the inherent disadvantages of operating a small business. Every financing transaction involves certain more or less fixed costs which are not related to the size of the loan and which are therefore more onerous for loans to small than to large firms. Since lenders must cover their costs if financial resources are to be distributed efficiently, commensurate rate differentials are consistent with adequacy.[2]

(2) The rates charged small business may differ from those charged large business and still be consistent with adequacy if the rate differentials reflect differences in risk as between lending to small and to large business. It is reasonable to assume that loans to small firms generally are riskier than loans to large firms.[3] To some extent the principle that rate differentials that reflect risk differentials are consistent with adequacy is also based on efficiency considerations.

Greater risk generally implies a greater possibility that resources will be wasted. In addition to the consideration that resources should be allocated efficiently, fairness to the lender requires that he be allowed to include an appropriate risk premium in the rate charged.

Availability

Adequacy implies equality of treatment as between small and large firms with respect to the availability of credit as well as with respect to rates. Equality of treatment does not imply that small firms should be able to borrow as much as large firms. Rather, the amount of credit that small firms are able to borrow relative to the amount to which large firms have access should be consistent with their relative sizes, as indicated by their respective net worths or other measures of size.

Perhaps the most obvious case where debt-financing facilities could be inadequate, in the light of the above criteria, is where lenders do not know enough about the affairs of borrowers to judge the appropriate risk premium. In such cases there would be no tendency for rates to reflect appropriate risk differentials, irrespective of whether or not lenders compete in terms of rates. Lenders would tend to err on the high side in setting rates and on the low side in establishing availability. This type of situation would appear to apply in particular to the case of new firms, which usually are small. It might be presumed that such concerns would obtain less credit or would pay a higher rate than would be implied by the adequacy yardstick. On the other hand, most small businesses are not new. Moreover, undoubtedly sufficient knowledge exists to estimate the riskiness of lend-

[1] The argument that adequacy implies equality of rates in the face of cost differentials is difficult to defend. If a small firm should be able to borrow at the same interest rate as a large firm, it should be able to purchase materials at the same price, irrespective of the fact that materials may be sold more economically in large quantities; less-than-carload freight rates should be no higher than carload rates, and so on. Adoption of such a principle would inevitably involve a reduction in real output. Furthermore, it seems to be a well-established principle, embodied in the Robinson-Patman Act, for example, that price differentials which reflect cost differentials are not contrary to the public interest.

[2] Certainly this would be the case if we define the universe broadly enough to include all potential as well as actual borrowers.

ing to many new firms—for example, where the firm is run by experienced persons and is in an established industry.

It would appear to be necessary that lenders have knowledge of, or the ability to estimate, risk if debt financing facilities for small business are to be adequate. On the other hand, this is not a sufficient condition to assure adequacy.

A case where debt financing facilities might be inadequate despite the fact that lenders can estimate risk arises where costs and risk are relatively high, and yet lenders are constrained from charging an appropriately high rate. There may be legal barriers or lenders simply "may not do that type of business." Such a case, which probably is among those visualized by critics who suggest that there is an "institutional gap," probably arises more with small than with large firms. As suggested above, lending costs and risk tend to be larger on loans to small than to larger borrowers.

Such cases tend to create potentially profitable situations, and it is legitimate to inquire why new institutions do not arise to close a gap of this kind. This has happened in some cases, as other studies in part I show, although a long-time lag may be involved. In other cases there may be legal or other institutional barriers to the type of operation needed to close the gap, or the potential market may be limited.

The possibility should be noted that the magnitude of any "institutional gap" may vary in importance over time in the sense that some "marginal" firms may be granted credit accommodations at some times and not at other times. For example, when credit conditions are easy, interest rates low, and loan demands generally slack, lenders might find it profitable to make loans to firms where lending costs and risks are relatively high, even though such loans might not be as profitable as loans to other firms. If this were the case, the transition to tight money would involve a more severe impact on such marginal firms, reflecting the fact that the rates charged these firms to begin with were low relative to costs and risks although possibly high in an absolute sense.

Another case where debt financing facilities for small business might not be adequate arises when the knowledge needed to estimate risk is limited to a few lenders who are familiar with the borrower's affairs or who are expert in a specialized type of lending operation. It is reasonable to suppose that such limitations are more likely to be important in the case of small concerns. Where this situation arises it is likely that the firm affected will pay a rate which is high relative to the associated cost and risk factors, but it may not be penalized from the availability point of view.

It may be helpful to summarize what has been said with respect to the adequacy of debt-financing facilities. The position taken is that rate differentials as between loans to large and small firms are consistent with adequacy so long as these differentials do not exceed actual differences in cost and risk. Adequacy from the availability point of view is defined as an amount of debt financing relative to invested capital (or possibly, to some other size criterion) of the small firm equal to that obtainable by large concerns, assuming that risk and cost differentials are properly reflected in the rate. A number of possible situations where facilities might be inadequate under this definition were suggested. These include situations where lenders do

not have the knowledge needed properly to formulate risk probabilities, where there are limitations on the rates that lenders can charge in the face of relatively high risks and costs, and where knowledge of risk is limited to a small number of lenders.

ADEQUACY OF EQUITY CAPITAL

In moving from the problem of debt financing to the problem of equity financing, it seems desirable to carry over the general principle that adequacy implies equality of treatment as between small and large concerns, and that a problem of price as well as a problem of availability is involved. However, it is even more difficult to specify what these mean in concrete cases than it was with debt capital. With respect to price, for example, adequacy requires that a firm receive the full value (as a going concern) of the stock sold in the enterprise. This includes the existing value as well as the increases in value made possible by employment of the additional equity funds; alternatively, the small firm should receive as large a proportion of this amount as a comparable large firm. The difficulties involved in applying this requirement to specific cases need no elaboration.

With respect to availability, it is obvious that allocation of equity capital cannot be determined simply by the relative sizes of firms without begging the question at issue. In setting up an availability yardstick, it is necessary to take into account the growth potential of the concern, and this is closely related to the question of the extent to which the firm can employ additional equity capital profitably. The adequacy yardstick requires that equity capital be invested in enterprises, irrespective of their size, which can earn the highest rate of return from the employment of additional capital. What makes this criterion difficult to apply is the several dimensions of the rate of return on investment. Not only is there a question of larger or smaller returns, but there is a problem of such returns being more or less remote in point of time and more or less probable of fulfillment. Furthermore, even after allowance is made for such factors, the return accruing to a firm from additional investment may not be the only factor to be taken into account in deciding how much equity capital is consistent with adequacy in a given case. For example, investment by a firm may involve benefits to society without corresponding income to the firm; conversely, such investment may involve costs to society which are not borne by the firm.

Although the concept of adequacy of equity financing set forth above is rather loose, it is not difficult to describe some possible situations where the suggested requirements of adequacy might not be met. The most obvious situation again is where potential investors do not have the necessary knowledge to judge with sufficient confidence the future prospects of a firm. It was suggested above (in the discussion of the debt-capital problem) that although lenders are required only to ascertain whether or not a loan could be repaid by potential borrowers, there nevertheless are situations where the required knowledge does not exist and these situations are more likely to involve small than large concerns. Since more knowledge is required to meet the standards of adequacy for equity than for debt financing, it is reasonable to assume that the knowledge actually possessed by, or avail-

able to, investors falls even further short of the mark. Moreover, it is reasonable to suppose that the problem of inadequate knowledge again will apply more frequently to small than to large firms, especially when the small firms are new. We know, for example, that a considerable amount of knowledge bearing on the prospects of large concerns is available to investors (often gratis or at nominal cost) from brokerage houses and published sources, whereas there may be little or no readily accessible information on small firms.

Furthermore, equity-financing facilities for small business might be inadequate even when knowledge with respect to the prospects of a firm are known if, as must often be the case, such knowledge is limited to a few investors. Investors in equities generally are individuals rather than financial institutions, and their resources may not be large enough to permit the extensive diversification of investments needed to balance off the large risks frequently involved in investing in small firms against the related possibilities of earning high returns. For this reason, and also because of the absence of competitive pressures, investors may tend to ask for disproportionately high returns on investments in small, and in particular new, firms.

Summarizing, the position is taken that equity financing facilities are adequate when the volume of equity capital available to small and to large firms is related not to their size but to the rate of return that may result from the employment of additional capital by these respective firms, these returns being appropriately discounted and allowance being made for varying probabilities of fulfillment. The price requirement is that investors pay the full value of their share of the enterprise, including the increment resulting from the capital investment, or that they pay the same proportion of this share to a small concern as they pay to a large firm.

Several situations where equity funds might be inadequate under this definition are possible. Probably the most important is where investors do not have sufficient knowledge to judge the prospects of the firm, in particular when the concern is new. A second possibility is where such knowledge does exist, but is limited to a relatively small number of investors who, because of the absence of competitive pressures or because of unwillingness to balance high risks against the prospects of making large returns, may provide capital only at a relatively high cost.

9. TRENDS IN THE RELATIVE IMPORTANCE OF SMALL BUSINESS [1]

INTRODUCTION

A recent study of small enterprise identified the problem of small business as an integral part of the problem of control of industry by a few large firms.[2] In any meaningful study of small business trends such as identification is essential, although it encompasses less than the entire problem. For any given industry the position of small independent firms is obviously affected by the market shares of their larger rivals. Indeed, the current literature on industrial structure typically refers to components of industry as the "Big Four," the "Big Six," and so on, on the one hand, and as the "competitive sector," the "little fellows," and the "cats and dogs" on the other. As the trend in the market share of the oligopolistic core moves in one direction, that of the small-business sector moves in the other. In given industries, therefore, it makes little sense to speak of small-business trends outside of their market setting—such trends are interdependent with those in big business.

But there are economic factors other than the position of big business which affect the small-business population. Such factors include disparate rates of growth among various sectors of the economy; e. g., a growth in service and trade relative to manufacturing, and among industries within various sectors of the economy, such as a growth in automobile relative to clothing manufactures, and so on.

Clearly, an analysis of trends designed to illuminate the issues of public policy toward small business—the primary design of this paper—must be conducted in the economic setting in which the trends occur. The business population in the United States declined from 3.3 million to 2.8 million between 1940 and 1944 and increased from 2.8 million to nearly 4.3 million between 1944 and 1956. These changes occurred largely in the small-business sector of the economy. There is no way, however, of judging whether these changes in numbers were too great or too small without reference to economic forces and

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[1] By Jesse W. Markham, Princeton University.

Jesse W. Markham, professor of economics at Princeton University, was former Chief Economist of the Federal Trade Commission. He is a consultant to the Federal Trade Commission, the Brookings Institution, and formerly to the Tennessee Valley Authority. He came to Princeton in 1953 as a visiting associate professor after 5 years on the faculty of Vanderbilt University. He became a permanent member of the department of economics and sociology the following year. He was named Acting Director of the Federal Trade Commission's Bureau of Economics in December 1953, serving on leave of absence from Princeton, and in September of 1954 becoming Director of the Bureau. Resigned February 1955 to devote full time to his duties at Princeton. Promoted to the rank of professor in 1957.

He is the author of Competition in the Rayon Industry, 1952; Workbook in Modern Economics (with R. Fels), 1953; and Economics of the Phosphate Industry, a Case Study of Market Imperfections, scheduled for publication in 1957. A frequent contributor of articles and reviews to the American Economic Review, the Journal of Public Law, the Proceedings of the American Bar Association, the Trade Practices Journal, and other publications, he is also contributing author of Business Concentration of Price Policy, 1955.

[2] Harold G. Vatter, Small Enterprise and Oligopoly (Oregon State College, 1955).

public policies which affect the number of business enterprises. And while economic analysis may be incapable of ascertaining whether the number of firms in a given industry, a given sector of the economy, or for the economy as a whole, is too large or too small, it is capable of identifying stimulants to and constraints on growth in the business population. Presumably, public policy in a private competitive society is concerned with those measures which stimulate or remove artificial constraints on growth in the business population consistent with economical resource allocation.

In summary, we would expect the small-business population to be affected by the following factors:

(1) Changes in firm size and degree of vertical integration relative to industrial growth.

(*a*) In general, we should expect to find that business population tends to change roughly with changes in real output. This means that growth in the economy could be accompanied by growth both in the size of firms and in their numbers, put primarily in their numbers.

(*b*) This process of growth in numbers may result directly from increased demand for products of a given industry, which encourages new firms to enter, and indirectly from what may be called "vertical disintegration."

(*c*) However, there may be forces in certain industries making for reduction in numbers and increased concentration. These may be broadly characterized as "economies of scale" and "momentum of size."

(2) The magnitude and nature of market imperfections.

On balance, we would expect greater increases in the number of firms in growing sectors of the economy when markets functioned perfectly than when they did not. That is, access to price-cost information, to raw materials and capital at competitive prices and rates, and so on should encourage the entry of new firms. Imperfections and restraints in such markets might discourage entry.

(3) Public policies, including antitrust tax, and Government procurement programs.

FACTORS AFFECTING SMALL-BUSINESS TRENDS

In terms of broad averages, the factors affecting the position of small business in the economy appear to be remarkably stable. That is, judging from long-run trends in economies of scale, the degree of vertical integration, and overall concentration, there is little reason for concluding that the relative importance of small business in the economy as a whole has been significantly affected. And judging from the administration of public policies affecting small business, especially antitrust policy, there are grounds for concluding that the political climate has recently become more favorable to small-business growth.

Economies of scale

There is no doubt about the fact that American business units are growing bigger. In 1901 the American economy saw the creation of its first $1 billion corporation—United States Steel—and financial analysts have calculated that one-third of the assets of that corporation

was "water." [3] The 1955 Fortune Directory of the 500 largest industrial corporations listed 19 firms having assets of $1 billion or more, 27 firms as large or larger than the $0.67 billion realistic asset value of United States Steel in 1901, and even this list omitted several billion-dollar companies whose stock was not publicly held. A list of $0.5 billion firms in 1901 and 1955 would show an even greater growth in big manufacturing corporations. There is no evidence that this trend toward larger and larger corporations is tapering off: new corporations enter the $1.0 billion or over asset class nearly every year; between 1939 and 1948 the number of firms employing 500 or more employees increased from 4,900 to 6,400.[4]

This growth in big business is often attributed to economies of large-scale production. By this it is meant that the most efficient firm is steadily growing larger, and hence that the growth in the national income has tended to produce larger firms rather than proportionately more firms. But while economies of scale undoubtedly explain why some firms have grown larger. the evidence suggests that such economies have not substantially affected the relative position of small business generally.

The technological manufacturing unit in the American economy is the plant, which typically is much smaller than the firm. The 1947 census of manufactures classified 452 industries. One-fourth of the industries were made up of small plants, no one of which employed as many as 500 employees; one-half the industries had one or more big plants, but the small plants in these industries produced over one-half the output; and one-fourth of the industries had large plants of 500 or more employees producing over one-half the output of the industries.[5] Hence, at the plant level, over one-half of the 1947 output in manufacturing was produced by units employing less than 500 workers, or by units which when operated independently are generally referred to as small business.

For manufacturing as a whole the average size of plant in terms of employment more than doubled between 1914 and 1937, but much of the increase was attributable to the relatively new and so-called growth industries. A study of 204 industries over this period showed that one-third of the increase in average size of manufacturing plants was attributable to four industries—motor vehicles, iron and steel. electrical machinery, and chemicals.[6] In most of the 204 industries the average size of plant increased slightly, while in 69 industries the average size of plant actually declined. The average number of employees per manufacturing plant increased slightly between 1937 and 1947, from 58.67 to 59.34 employees, and between 1947 and 1954 declined to about 58 employees.

We turn now to the firm, the organizational unit in the American economy. While, as shown earlier, the economy contained more very large firms in 1957 than in 1901, in considerable measure this has simply reflected growth in proportion to the economy. In 1939 business firms employing under 500 employees accounted for 99.85 per-

[3] Henry R. Seager and Charles A. Gulick, Jr., Trust and Corporation Problems (Harpers, 1929), p. 224.
[4] A. D. H. Kaplan, Big Enterprise in a Competitive System (the Brookings Institution, 1954), p. 69.
[5] Kaplan, op. cit., p. 76.
[6] U. S. Congress. Temporary National Economic Committee, The Structure of Industry, Monograph 27 (1941).

cent of all firms, in 1948 for 99.84 percent, and in 1956 for over 99.8 percent.[7] In 1939 these firms accounted for 59.30 percent of all gainfully employed persons, and in 1948 for 60.54 percent. Thus while there are more large firms they apparently account for no perceptibly greater proportion of total economic activity now than they did in earlier years.

Unfortunately for our purposes the census of manufactures gives much more comprehensive data on establishments than on firms, especially for the prewar years. Nevertheless, it should be pointed out that the typical manufacturing firm is still a single-establishment organization, that the relative frequency of single-establishment firms—contrary to general impressions—appears to be increasing, and that for these reasons much of what holds for the average size of plant also holds for the firm. In 1937, 84.5 percent of all manufacturing firms operated a single establishment and 15.4 percent had central offices operating more than 1 establishment; in 1947 the comparable figures were 87.1 and 12.9 percent, respectively. In 1937 manufacturing firms operating a single establishment accounted for 48.6 percent of total manufacturing employment, and in 1947 for 46.5 percent, or only slightly less.

While data on nonmanufacturing sectors of the economy are less comprehensive, Department of Commerce data on retail trade show that independent retailers account for nearly 90 percent of all retail sales, and that their share gradually increased between 1929 and 1950. In 1929 chains and mail-order houses accounted for 21.5 percent of retail sales, in 1933 for 27 percent, in 1939 for 22.8 percent, and in 1950 for 20.7 percent. In retail trade, as in manufacturing, the smaller independent firm generally associated with small business appears at least to be holding its own, and is possibly gaining on the larger multiestablishment firm.

The foregoing aggregate data suggest that the technological forces making for big business—and therefore rendering small-business units obsolete—have been accorded more emphasis than is justified. Two of the more recent assessments of the empirical evidence on scale economies in specific manufacturing industries seem generally to support this conclusion. In his 1951 Harvard Business Review article, Richards C. Osborn restated conclusions reached in many previous studies; namely, that no generalization on size and efficiency can be made with confidence.[8] True, some earlier studies had shown that in certain industries—notably in the production of cement, iron ore, pig iron, steel ingots, crude petroleum, beet sugar, automobile tires, and rayon—the largest plants tended to produce at lower costs than small plants; and in some of these industries large firms appeared to produce at lower costs than small ones.[9]

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[7] Nineteen hundred and thirty-nine data from Committee for Economic Development, Meeting the Special Problems of Small Business (CED, 1947); 1956 data from The Story of Business: Large and Small (E. I. du Pont de Nemours & Co., 1956). The Du Pont study does not cite the source of its data nor give the year for which they are applicable but states only that "a census of United States firms today" shows that 98.8 percent of all United States firms fall in the 50 employee or less category, see p. 8.

[8] Richards C. Osborn, Efficiency and Profitability in Relation to Size, Harvard Business Review, March 1951, pp. 82–94.

[9] Ibid., Osborn cites John M. Blair, The Relation Between Size and Efficiency in Business, Review of Economic Statistics, August 1942, pp. 125–135; United States Commissioner of Corporations, Report on the Steel Industry, pt. III, Cost of Production (1913); Federal Trade Commission, Wartime Profits and Costs of the Steel Industry (1925); Office of Price Administration, Survey of Rubber Tire and Tube Manufacturers, OPA Data Series No. 10 (1947). See also J. W. Markham, Competition in the Rayon Industry (Harvard University Press, 1952), ch. 3.

But in steel, low firm costs were associated as much with degree of verticle integration as with size in terms of particular product markets; in crude oil, medium-size firms appeared to be more efficient than large firms; and medium-size firms appeared to be the most efficient size in bread and flour, mixed fertilizer, and bulk superphosphate production.[10] Caleb A. Smith, citing much the same body of literature as Osborn, reached much the same conclusion: very little is known about the general relationship between size and efficiency in the American economy; it apparently varies from industry to industry.[11]

All this would seem to support a conclusion that economies of scale have not seriously impaired the viability of small business generally. The average plant in many manufacturing industries still employs less than 50 employees and the average has not changed perceptibly since 1939; over 99 percent of all firms still employ less than 500 employees and 85 percent of those in manufacturing operate a single plant each; the relationships between size of firm and costs and profitability vary from industry to industry but numerous and varied studies since World War I point to no generalization about business size and costs, or business size, and long-run rates of return.[12] In retail trade, independents are at least holding their own, and possibly are gaining on the chains and mail-order houses. In the economy as a whole the small-business population appears to have been remarkably stable, with firms of less than 50 employees accounting for 98 percent of the business population in 1939 and for a slightly higher percentage in 1956.

Data such as these, of course, have serious deficiencies for the purpose of assessing the impact that economies of scale may have had on long-run trends in small business. First, most studies have been confined to production costs. But as multiplant and multifunction business organizations, large firms engage in research, design and execute marketing strategies, negotiate financial arrangements, and often maintain large and extensive distribution facilities. The total costs of these activities generally are not reflected in production costs. While no comprehensive study has been made of such functions, some of them are patiently subject to large-scale economies: a one-page advertisement in Time magazine costs the same whether the seller distributes throughout the Nation or just in the East; the same is true of advertising by national radio and television networks. Large bank loans and bond flotations generally carry lower charges per dollar of capital than small ones. Virtually every study made of the distribution function shows declining costs with increasing size.[13] While it is difficult to distinguish between genuine economies of scale and the advantages of market power in the analysis of such firm functions, clearly certain firm economies may exist. The efficiency of small business relative to that of larger firms is less than production-cost data suggest.

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[10] Osborn, op. cit., p. 85.

[11] Caleb A. Smith, Survey of the Empirical Evidence on Economics of Scale, in National Bureau of Economic Research, Business Concentration and Price Policy (Princeton University Press, 1955), pp. 213–230.

[12] But large firms generally tend to have more stable profits than small firms and therefore may make them better credit risks, see infra.

[13] Cf. M. A. Adelman, The Dominant Firm (Ph. D. dissertation, Harvard University, 1948), and R. G. Bressler, Jr., City Milk Distribution (Ph. D. dissertation, Harvard University, 1946).

Second, a definition of business size in terms of employment is highly unsatisfactory for long-run trend analysis. As Joseph Steindl has shown, firms engaged in manufacturing typically grow through capital intensification rather than by increasing the number of employees.[14] Thus the capital cost of entry in manufacturing probably has risen at a much faster rate than the number of employees per firm over the past half-century. Small business, when measured in terms of employees per firm, may therefore appear to be much more prevalent in manufacturing than it actually is.

Finally, as stated at the outset in this paper, any meaningful analysis of trends in size segments of the business population must relate to the market environment in which firms operate. A small business competing with other small-business units confronts different problems—and a different probability of survival—than one competing with large business units. This suggests that while the small-business population may have maintained its numerical position in the American economy, developments in the large business sector may well have assigned it a different role, confronted it with different market problems, and hence greatly affected small-business trends in specific markets. Such trends are taken up later under the subject of trends in concentration.

Concentration and vertical integration

As stated earlier, the economic factors that affect the degrees of concentration and vertical integration also affect small business. An increase in concentration not only may have the immediate effect of reducing the small-business population, but also may have the accelerating effect of further alerting the role of small enterprises. That is, small firms which can compete with small firms may be unable to compete on the same terms with large ones, and may therefore shift to industries generally characterized by small firms or become "satellites" of larger firms. Also, changes in the degree of vertical integration in the economy affect the role of small business. As industries grow we would expect some vertical disintegration, thereby creating new opportunities for small business in some sectors of the economy but decreasing the opportunities in those areas characterized by significant economies of scale.[15] Hence, an analysis of trends in concentration and vertical integration should shed light on the trend in small business.

Trends in concentration

While studies of concentration leave much to be desired, they generally agree that the overall level of concentration in the American economy has shown no perceptible trend since around 1900. M. A. Adelman has made the most comprehensive synthesis of the more scientific work in this field. In his often-cited 1951 article he found that concentration probably increased slightly between 1909 and 1924; that the share of total assets held by the 200 largest nonfinancial corporations increased from 47.9 to 54.8 percent between 1929 and 1933; that the 139 largest manufacturing corporations accounted for 49.6

[14] Joseph Steindl, Small and Big Business, Monograph 1, Oxford University Institute of Statistics (Oxford, England, Blackwells, 1946), especially pp. 23–25.

[15] This hypothesis has been most clearly stated by George J. Stigler, The Division of Labor Is Limited by the Extent of the Market, Journal of Political Economy, June 1951, pp. 185–193; but see also M. A. Adelman, Concept and Statistical Measurement of Vertical Integration, Business Concentration and Price Policy, pp. 318–319.

percent of total corporate manufacturing assets in 1931, and for 45.1 percent in 1947; and that industries having concentration ratios exceeding 50 percent accounted for 32.9 percent of total value added in manufacturing in 1901, but for only 24 percent in 1947.[16] George Stigler, in an analysis of 20 significant manufacturing industries having firms with assets of $300 million and more in 1937,[17] found that between 1904 and 1937 concentration declined substantially in 14 of the 20, declined almost imperceptibly in 3, increased slightly in 1, and increased substantially in 2.[18] A Department of Commerce study showed that the weighted-average concentration index for 129 industries was 44 percent in 1935 and 41.4 percent in 1947, the decline reflecting principally the more rapid growth of low-concentration industries.[19] And a 1957 Bureau of the Census study shows that the largest 200 manufacturing corporations accounted for 30 percent of total value added in manufacturing in 1947 and for 37 percent in 1954.[20]

In most of these studies the estimating errors are large and the calculations not entirely free of ambiguity, but collectively they constitute persuasive evidence that the trend in the overall level of concentration in manufacturing since 1900 has been horizontal, although the spliced series show some cycles of moderate amplitude. In manufacturing as a whole, then, there is little basis for concluding that small business has been driven from the market through the rise of oligopoly.

But the approximately horizontal trend in concentration in manufacturing has resulted from counterbalancing trends in particular industries, some of which have shown sharp upward or downward movements (table 1). Of 375 industries studied by the Bureau of the Census for the period 1947–54, 180 registered increases in concentration, 173 registered decreases, and 22 registered no change; and the number of firms increased in 220 industries, decreased in 150 industries, and remained unchanged in 5 industries. Increases in the number of firms tended generally to be associated with decreases in concentration, and decreases in the number of firms with increases in concentration.

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[16] The Measurement of Industrial Concentration, Review of Economics and Statistics, November 1951, pp. 269–296.

[17] George Stigler, Five Lectures on Economic Problems (Longmans, 1949), p. 62.

[18] The most noticeable increase in concentration occurred in the automobile industry, of which more will be said later.

[19] U. S. Department of Commerce, Concentration of Industry Report (1949).

[20] Bureau of the Census, The Proportion of the Shipments (or Employees) of Each Industry, or the Shipments of Each Group of Products Accounted for by the Largest Companies as Reported in the 1954 Census of Manufactures. Prepared at the request of the Subcommittee on Antitrust and Monopoly of the Senate Judiciary Committee (July 1957).

TABLE 1.—*Classification of 375 manufacturing industries according to changes in concentration between 1947 and 1954*

Change in concentration	Change in number of firms			
	Increase	Constant	Decrease	Total
Increase	83	3	94	180
Constant	7	1	14	22
Decrease	130	1	42	173
Total	220	5	150	375

Source: Bureau of the Census. The Proportion of the Shipments (or Employees) of Each Industry, or the Shipments of Each Group of Products Accounted For by the Largest Companies as Reported in the 1954 Census of Manufactures. Prepared at the request of the Subcommittee on Antitrust and Monopoly of the Senate Judiciary Committee. (July 1957, pp. 5–25.)

Probably the most pronounced increase in concentration, and certainly the most highly publicized, has occurred in the automobile-manufacturing industry. It is estimated that in the 1920's there were 111 automobile manufacturers, and that by 1930 over 2,500 automobile makes had at some time entered the American market. The "Big Three"—Ford, General Motors, and Chrysler—went into their ascendancy in the 1930's, the depression having driven many small producers out, and had all but a small fraction of the market by 1949, and an even larger share by 1957. The pentup postwar demand led to the entry of a single new producer—Kaiser-Frazer—and this firm did not survive. An industry comprising 111 firms in the 1920's contained only 5 independent firms in 1957. The automobile industry, probably more than any other, reveals the cumulative adverse effect of rising concentration on smaller producers. In the 1930's the very small and financially weak firms fell out of the competitive race. The 1950's saw such established firms as Nash, Hudson, Packard, and Studebaker taking refuge in defensive mergers. Automobile manufacturing, once characterized by small firms each producing 2,000 cars per year, is no longer a place for small business. The "Big Three's" production and marketing economies of scale or the market power their size gives them—the two are difficult to separate—present insuperable obstacles to the potential entrant, small or large.

Other areas of manufacturing showing substantial declines in the number of firms and increases in concentration (as measured by the share of the largest four firms in total industry shipments) in recent years include beer and ale, flour and meal, wines and brandy, men's and boys' suits and coats, children's vehicles, tobacco pipes, and mechanical stokers (table 2).

TABLE 2.—*Industries which registered significant changes in number of firms and concentration, 1947 to 1951*

	Number of firms		Percentage of value of shipments accounted for by the 4 largest firms	
	1947	1954	1947	1954
Firms increased, concentration decreased:				
Veneer mills	136	252	20	9
Metal household furniture	305	635	26	16
Paper bags	160	326	44	32
Screw machine products	1,205	1,791	17	11
Electrical measuring instruments	150	290	61	44
Radios and related parts	799	1,612	26	24
Electronic tubes	32	112	73	64
Aircraft engines	54	202	72	62
Boat building and repairing	798	1,146	31	21
Fabricated metal products, n. e. c.	430	1,017	31	18
Aircraft equipment, n. e. c.	201	1,054	37	20
Firms decreased, concentration increased:				
Flour and meal	1,084	692	29	40
Beer and ale	404	263	21	27
Wines and brandy	379	244	26	38
Men's and boys' suits and coats	1,761	1,255	9	11
Leather dress gloves	246	142	20	29
Children's vehicles	119	58	30	46
Tobacco pipes	74	42	52	63
Manufactured ice	2,206	1,430	22	26
Motorcycles and bicycles	75	44	42	50
Mechanical stokers	46	25	55	78

Source: See table 1.

Meanwhile, in other manufacturing industries, firms have increased in substantial numbers and concentration has declined. Industries falling in this category include veneer mills, metal household furniture, paper bags, screw machine products, electronic tubes, aircraft engines, radios and related parts, and various sorts of fabricated metal products and aircraft equipment "not elsewhere classified."

While reliable generalizations would require further analyses of census data, the reduction in number of firms and the increases in concentration, as defined above, appear to have occurred largely in the more established final product lines such as tobacco pipes, beer and ale, automobiles, manufactured ice, and motorcycles and bicycles, and the great growth in firms and decline in concentration have occurred in parts sectors of the newer industries such as electronic tubes, aircraft engines, aircraft equipment—(not elsewhere classified)—and screw machine products, or in such growing industries as metal household furniture and paper bags.

Most manufacturing industries have been characterized by less extreme changes in firm population and concentration than those shown in table 2. Typically, changes in both the firm population and the concentration ratio from 1947 to 1954 have stayed within a 10 percent increase and a 10 percent decrease.

Trends in vertical integration

The only comprehensive study of trends in vertical integration measures it in terms of the ratio of value added to total value of sales, referred to as the index of vertical integration.[21] On the whole, the degree of vertical integration shows no trend over the period 1929–51. The ratio of value added to sales for all corporations stood at 32.6 in 1929 and at 31.4 in 1951. In the intervening years the ratio declined to a low of 23.5 in 1933, gradually rose to a high of 37.9 in 1943, and remained remarkably stable (between 30.4 and 31.5) from 1946 to 1951.

The stability of an aggregate index of vertical integration possessing significant weaknesses can at best only suggest the absence of a significant overall trend. Nevertheless, the virtual constancy of the index between 1946 and 1951 sheds some light on the concentration data discussed earlier. On the basis of a relatively small sample it appeared that between 1947 and 1954 significant increases in concentration and decreases in independent firms generally occurred in industries making finished products long established in the market, whereas significant declines in concentration and increases in firms occurred in the parts and components sectors of relatively new industries, or in certain new finished-product industries. These data would suggest that as the new industries grew they may have spawned new firms through disintegration. It would therefore appear that increases in vertical integration in the more mature industries have just about offset vertical disintegration in the newer industries. The empirical evidence on particular industries is exceedingly sparse, but Adelman did find that small steel companies tended to become more vertically integrated between 1929 and 1951, and that in automobiles and equipment the index for the under $5 million asset class tended to increase.[22] On the other hand, the indexes for firms of nearly all sizes in the rapidly growing chemicals and electrical machinery and equipment industries declined. This suggests that the trend has been toward increases in vertical integration among the more mature industries, and possibly toward greater vertical disintegration in the newer industries, and that one has just about offset the other.

But other factors may also explain the stability of the index of vertical integration. It is quite probable that vertical disintegration and decreased concentration have occurred principally in those industries given small weights in the aggregate index. Industries are weighted by value added and total value of sales. This would suggest that the growth of small firms has centered largely in the relatively low-weighted industries. It is possible that nearly all manufacturing industries underwent vertical disintegration, but that there was a shift away from the less integrated and toward the more integrated industries; the shift could therefore have just offset the declines in vertical integration in all industries.[23]

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[21] National Bureau of Economic Research, Business Concentration and Price Policy, pp. 281–322. For a discussion of the shortcomings of the particular measure, see pp. 281–283.

[22] Ibid., pp. 308–309.

[23] Statistically, of course, the opposite could also have been true, i. e., a shift toward the less integrated industries and indexes for all industries showing increases. In point of fact, 17 of the 20 industry groups Adelman analyzed showed decreases, 2 increases, and no change. Ibid., pp. 304–307.

Public policy

Traditionally it has been argued that public policy affects small business more than any other single factor. Indeed, the rationale underscoring the antitrust laws is that the prevention of monopoly, mergers, and price discriminations that tend to lessen competition, and of other anticompetitive practices leave the business arena open to small and independent enterprises. This point has been emphasized in virtually every public document on antitrust and small business since the enactment of the Sherman Act nearly 70 years ago. The policy statement on small business by the Committee for Economic Development in 1947 emphasized the need for clarifying the laws of business competition and urged that—

> the growing problem of the acquisition of small- and medium-size businesses by larger concerns should * * * receive careful study * * *.[24]

The Government has recognized the necessity for doing both: the Attorney General's National Committee To Study the Antitrust Laws, established in 1953, issued its well-known report in April 1955. Its purpose was to clarify the law. In 1950 the Congress amended section 7 of the Clayton Act to curb mergers and acquisitions, and has since conducted voluminous hearings on the adequacy of the 1950 statute and on proposals for strengthening it. Meanwhile, the Federal Trade Commission and the Department of Justice between them have initiated about 35 merger cases, private parties have initiated 2 or 3, and an unknown number of mergers has been prevented through Government recommendations in premerger consultations and on the advice of private counsel. On recommendation of the Attorney General, the Congress in 1955 increased the maximum fine for violation of the Sherman Act from $5,000 to $50,000. Between 1951 and 1954 the number of complaints, orders, and consent settlements initiated by the Federal Trade Commission increased with each passing year.[25] And since 1953 the Department of Justice appears to have stepped up its antitrust program, its most spectacular victory having been won on appeal in the 1957 Du Pont-General Motors decision.

It is impossible, of course, to measure the intensity of antitrust activity in quantitative terms. But there appears to be general agreement that the trend is toward stronger antitrust law enforcement. In addition to the evidence cited above, the Government had some noteworthy cases over the past 18 years. The years following 1940 have seen the demise of conspiratorial basing point pricing, a much strengthened antimerger program, and Government victories in cases against Alcoa (1940), American Tobacco (1946), United Shoe Machinery (1953), and Du Pont-General Motors (1957). It lost its case on appeal in Du Pont Cellophane by the narrow margin of 4 to 3. As Professor Mason has put it:

> [It is] my impression that the law of section 2 (of the Sherman Act) has developed in at lest two directions: market power, or, if you prefer, economic monop-

[24] Committee for Economic Development, Meeting the Special Problems of Small Business (CED, 1947), pp. 48–50.

[25] Statement of Edward F. Howrey, Chairman of the Federal Trade Commission, before the House Select Committee on Small Business, July 14, 1954, pp. 7–8. (Available only in mimeographed form from FTC.)

oly, is recognized in situations that would rather easily have passed muster in 1920; and the standards of what constitutes abuse of power have been rather stringently tightened. Market power "without more" is still no violation. But the "more" is now less and the concept of power is more embracing than it was in the 1920's.[26]

In short, the trend has been toward more vigorous antitrust, but by how much more is difficult to ascertain, to measure, and to evaluate. To the extent that the climate favorable to small business, ceteris paribus, varies directly with antitrust law enforcement, policy in this area apparently has stimulated the growth of small business.

Summary

Economic factors producing any significant overall trade in the small-business population would be expected to register in the measures of economies of scale, concentration, and vertical integration. Studies of these measures in the manufacturing and retailing sectors reveal no perceptible trends. In some industries large firms are more efficient than small ones, but there is little evidence that increasing economies of scale have excluded growth of small concerns. The overall indexes of concentration and vertical integration have shown a remarkable degree of stability, suggesting that trends in some areas of the economy have been offset by changes in the opposite direction in others. But it should be stressed that aggregative measures of industrial structure lead to no supportable conclusion that, in manufacturing at least, the relative position of small business has undergone any signficant long-run trend. The particular effects of various public policies on small business trends are extremely difficult to assess, but on balance it would appear that public policies and environment are at least as favorable—perhaps more favorable—to the growth of small business as they have ever been.

TRENDS IN SMALL BUSINESS

Net changes in business population

In terms of broad averages the growth in number of small-business units appears to follow that of the economy as a whole, a fact that is consistent with the conclusions reached in the previous section. The total business and total human population move in remarkable consonance with each other (table 3, sec. A). In 1957 there were about 25 business firms for every 1,000 persons; the comparable figure for 1929 was 24.9. Even in the depths of the great depression, the ratio fell only to 23.2. A study covering the period 1900–1943, using a somewhat different but consistent definition of firm population shows that the firms per 1,000 stood at 15.4 in 1900 and at 15.6 in 1942–43 (table 3, sec. B).

The high correlation between business firms and the human population apparently holds also for small-business firms. Firms with less than 50 employees accounted for 98 percent of the business population in 1939, and for a slightly higher percentage in 1956. Firms with less than 500 employees—generally defined as the small-business sector—accounted for 99.85 percent of all firms in 1939, for 99.84 percent in 1948, and for a little over 99.80 percent in 1956.[27] Numer-

[26] E. S. Mason, Economic Concentration and the Monopoly Problem (Harvard University Press, 1957), pp. 399–400.
[27] See note 6, supra.

ically, small-business entrepreneurs account for an overwhelming majority of all business firms, and their relative position has undergone no perceptible trend since the turn of the century.

TABLE 3.—*Business firms and population, selected dates, 1900–1957*

Year	Business firms (thousands)	Population [1] (millions)	Firms per 1,000 population
	Sec. A. All firms [2]		
1929	3,041.6	121.8	24.9
1933	2,796.2	125.6	22.2
1939	3,246.4	130.9	24.8
1943	2,904.4	133.9	21.7
1957	4,322.0	[3] 173.0	25.0
	Sec. B. Firms with credit rating [4]		
1900	1,174.3	76.1	15.4
1910	1,515.1	92.4	16.4
1920	1,821.4	106.5	17.1
1930	2,183.0	123.1	17.7
1940	2,156.5	132.0	16.3
1942	2,151.5	133.8	16.1
1943	2,023.0	133.9	15.1

[1] U. S. Bureau of the Census, Statistical Abstract of the United States, 1943, p. 3. Excludes United States troops abroad.
[2] All business firms as estimated by the U. S. Department of Commerce.
[3] Estimated.
[4] Business firms with credit ratings as estimated by Dun & Bradstreet.

The numerical frequency of small businesses, of course, may not be an accurate indicator of their economic importance. The position of small business in the economy generally can best be measured in terms of its share of employment and national income. Here too, except for a recent cyclical downswing to be discussed later, the overall position of small business enterprises apparently has undergone no significant trend. By far, the best data on income by industrial origin are published by the Department of Commerce. These data are broken down by legal form of business organization rather than size of firm. However, because 89.3 percent of all business firms are unincorporated, and because well over 90 percent of all small businesses are unincorporated, the share of the national income received by the unincorporated sector does not differ significantly from that for small business. Since 1929 this share has remained relatively stable and has shown no perceptible trend (table 4). Similarly, the share of the labor force accounted for by firms with less than 500 employees has remained stable at around 60 percent between 1939 and 1948.

TABLE 4.—*Shares of national income and employment, selected years*

[Percent]

Year	Proportion of national income to—		Proportion of employment in firms with less than 500 employees
	Unincorporated business (excluding agriculture)	Corporate profits (before tax)	
1929	10.0	11.0	
1933	7.9	.4	
1935	9.4	5.5	
1939	10.0	8.8	59.30
1943	9.9	14.4	
1945	10.5	10.5	
1948	9.8	14.8	60.54
1953	8.6	12.9	

Source: Income data from U. S. Department of Commerce, National Income, 1954 edition; employment data from A. D. H. Kaplan, Big Enterprise in a Competitive System (The Brookings Institution, 1954), p. 69.

But while small business generally has tended to grow proportionately with the economy as a whole, its growth has varied widely among various industrial sectors of the economy. In part, the variation in small business growth can be inferred from the sharp variations among sectors in net increases in firms (table 5). Between 1929 and 1957 the total business population increased by about 1.29 million firms, or by 42 percent. Retail trade firms grew approximately in proportion to total firms (by 43 percent) and accounted for 44 percent of the increase in all firms. The number of firms in wholesale trade increased by 100 percent, and in contract construction by 104 percent. On the other hand, the number of firms in manufacturing increased by only 20 percent, service industries by 29 percent, and finance, insurance, and real estate (1929 to 1952) by only 6 percent. Thus relatively large increases in firms were registered in trade and contract construction where firms are typically small, and relatively small increases were registered in manufacturing and finance, insurance, and real estate where, except for real estate, firms tend to be larger. In the service industries, where firms are typically small the increase in the number of firms was also small.

Differential rates of growth among sectors of the economy partly account for the differences in net increases in firms. Manufacturing, construction, and trade grew more rapidly (in terms of private national income) than the rest of the economy; services, transportation and public utilities, mining, and finance and real estate grew less rapidly.

TABLE 5.—*Businesses in operation, by industry, 1929–57*

[Thousands of firms, 1929–52, annual average; thereafter June 30]

Year	All industries [1]	Manufacturing	Contract construction	Wholesale trade	Retail trade	Finance, insurance, and real estate	Service industries
1929	3,029.0	257.0	233.8	148.1	1,327.0	316.2	590.9
1933	2,782.1	166.8	185.4	141.8	1,291.2	289.9	574.9
1939	3,222.2	221.3	199.4	175.6	1,534.6	296.6	615.2
1944	2,916.5	250.2	153.3	177.9	1,322.6	297.0	551.8
1947	3,783.2	312.0	292.6	250.9	1,685.9	321.9	711.5
1948	3,948.4	320.0	329.0	257.9	1,763.8	323.4	738.3
1949	4,000.0	320.5	347.5	261.8	1,794.3	323.0	736.8
1950	4,050.7	320.7	370.5	266.2	1,815.8	325.5	735.6
1951	4,108.5	327.2	388.6	273.1	1,834.0	329.9	735.5
1952	4,167.4	328.8	411.0	280.5	1,850.8	334.7	739.5
1953	4,205.7	326.6	432.3	285.0	1,859.2	----------	741.9
1954	4,196.7	317.6	441.3	287.1	1,850.7	----------	742.3
1955	4,232.3	311.4	465.6	289.9	1,857.3	----------	745.0
1956	4,294.2	311.8	483.0	291.9	1,874.2	----------	755.7
1957	4,322.0	309.0	478.0	297.0	1,897.0	----------	761.0
Percentage increase, 1929–57	42	20	104	100	43	[2] 6	29

[1] Total includes all industries not shown separately.
[2] 1929–51.

Source: U. S. Department of Commerce, Survey of Current Business, January 1954, January 1958.

Business births, transfers, and failures

Trends in business population growth are based on net increases in firm numbers—the excess of business births over business deaths. This net figure has shown a remarkably stable tendency to grow in proportion to total economic activity. That is, by and large the business population has grown in proportion to the national income. However, underneath the relative stability of net figures on business population there is a considerable turnover of firms. For example, the net increase in the business population between 1955 and 1956 of 42,000 represented 380,000 business births and 338,000 business deaths—the net change representing scarcely more than 5 percent of the total number of business firms involved.

While busines births and deaths relative to the total population undergo pronounced cycles—the largest occurring in 1929–33—they have demonstrated no long-run trend suggestive of significant change in the relative position of small business in the economy. One significant (but proportionally not large) cause of business death is failure. The series on business failures covering the longest time period is the Dun & Bradstreet series on discontinuances involving loss to creditors. In 1920 the number of such discontinuances per 1,000 firms was 4.8 and in 1956 the number was the same.[28] The Dun & Bradstreet series is based only on failures involving losses to creditors for firms listed in the Dun & Bradstreet Reference Book, and hence covers considerably less than the total business population. However, the data are comparable for the years covered. The Department of Commerce series, based on much wider coverage but available only from 1940 to date, shows the number of discontinuances per 1,000

[28] Richard Sanzo, What's Behind the Rise in Business Failures? Dun's Review and Modern Industry, December 1957, p. 46.

firms at 97 in 1940 and at 79 in 1956. There is no perceptible long-run trend in the failures per 1,000 firms in either series.

Business births, discontinuances, and transfers, as in the case of net changes in the business population, vary widely among sectors of the economy. Retail trade, which accounted for about 44 percent of all business firms in 1956, accounted for 40 percent of all business births, 40 percent of all business discontinuances, and 67 percent of all business transfers (table 6); manufacturing accounted for only 7 percent of all business firms, for 7 percent of the births, slightly less than 8 percent of the discontinuances, and for only 4 percent of the transfers. In sum, business discontinuances and transfers tend to vary among industries approximately in proportion to business population and births—the higher the births and the larger the business population, the larger the number of discontinuances and transfers.

Departures from more or less proportional changes result in relative growth or decline of the business population in individual sectors. Thus between 1940 and 1957 contract construction and wholesale trade registered much higher birth rates relative to discontinuance rates than other major sectors of the economy, which resulted in net increases in contract construction firms of 140 percent and in wholesale trade firms of 60 percent. Over the same period, the number of all firms increased 32 percent, of manufacturing firms 37 percent, of retail establishments 21 percent, of firms in service industries 22 percent, and of all other firms 20 percent.

TABLE 6.—*Businesses: New, discontinued, and transferred, by industry, 1940–57*

NEW BUSINESSES

[Thousands of firms]

Year	All industries	Mining and quarrying	Contract construction	Manufacturing	Public utilities [1]	Wholesale trade	Retail trade	Finance	Service
1940	275.2	5.3	21.9	29.2	16.7	20.4	117.9	14.7	49.2
1941	290.0	4.6	19.9	30.9	19.9	22.6	117.4	12.9	61.7
1942	121.2	1.7	7.5	23.2	7.5	4.8	39.3	8.6	28.7
1943	146.0	2.4	8.8	25.2	9.9	7.8	49.9	13.6	28.3
1944	330.9	3.5	28.4	26.9	23.9	24.5	128.1	24.2	71.4
1945	422.7	4.0	55.8	37.2	26.7	30.2	161.4	22.9	84.5
1946	617.4	4.7	95.1	62.8	37.4	45.2	234.1	21.4	116.6
1947	460.8	4.9	73.8	39.7	26.9	29.8	179.5	15.9	90.3
1948	393.3	5.3	65.0	34.6	23.9	24.4	151.2	16.0	72.9
1949	331.1	3.6	54.2	25.8	18.5	21.1	135.5	14.7	57.5
1950	348.2	4.1	64.1	30.0	21.4	21.6	133.0	18.6	55.5
1951	363.2	4.3	63.1	30.9	24.5	22.6	140.0	21.2	56.6
1952	363.9	[3] 4.3	69.5	28.5	[2] 24.0	22.7	141.5	[2] 19.3	54.3
1953	340.5	----------	64.3	26.4	----------	20.5	135.5	----------	52.7
1954	334.2	----------	61.5	22.7	----------	19.9	135.2	----------	53.1
1955	380.4	----------	70.9	26.3	----------	21.3	151.2	----------	59.9
1956	380.8	----------	64.8	26.8	----------	21.8	152.2	----------	63.0
1957 [4]	211.0	----------	34.5	13.4	----------	12.2	87.9	----------	35.6

DISCONTINUED BUSINESSES

1940	318.1	3.6	30.0	21.7	20.7	13.9	137.6	16.8	73.7
1941	270.7	3.9	27.2	20.6	17.9	12.9	116.6	16.2	56.3
1942	386.5	5.2	30.0	21.0	22.1	23.7	199.4	15.6	69.6
1943	337.0	4.7	26.3	21.8	18.5	19.8	159.9	14.6	71.4
1944	174.6	3.1	15.2	20.2	13.3	8.3	63.6	11.3	39.7
1945	175.6	3.0	16.9	26.4	13.5	7.3	59.2	11.2	38.3
1946	208.7	3.1	26.0	24.3	19.5	11.4	65.5	15.0	43.9
1947	239.2	3.1	31.6	26.8	19.6	17.7	76.5	14.9	49.9
1948	282.0	4.0	36.3	27.4	19.7	19.1	98.5	14.7	62.3
1949	306.5	4.5	40.7	30.8	21.0	18.0	115.5	15.5	60.7
1950	289.6	3.7	39.2	24.7	18.3	16.3	115.0	14.5	57.8
1951	309.3	3.6	46.7	26.4	23.4	15.2	123.7	16.1	54.2
1952	306.3	[2] 3.8	45.5	29.1	[2] 20.4	15.7	125.8	[2] 15.5	50.8
1953	334.0	----------	50.7	31.5	----------	17.8	138.4	----------	52.6
1954	330.6	----------	46.8	32.1	----------	18.0	139.1	----------	51.6
1955	324.1	----------	45.1	29.6	----------	17.7	136.7	----------	54.0
1956	338.9	----------	60.0	26.7	----------	17.7	136.1	----------	54.5
1957 [3]	176.0	----------	33.0	14.0	----------	10.0	67.0	----------	29.0

TRANSFERRED BUSINESSES

1944	359.4	2.1	6.5	16.9	9.9	11.1	227.0	20.7	65.4
1945	473.2	2.4	9.9	21.3	11.9	15.7	307.6	21.5	82.9
1946	626.9	2.8	18.2	37.3	15.6	25.6	399.2	21.0	107.1
1947	571.9	2.9	18.1	31.3	14.7	20.4	374.8	16.1	93.6
1948	501.3	2.9	17.0	28.9	13.0	17.3	327.0	16.6	78.5
1949	434.7	2.4	15.7	21.9	11.1	16.0	286.1	15.5	66.0
1950	419.4	2.3	14.8	20.6	10.2	14.4	277.8	16.1	63.1
1951	378.3	2.1	12.7	16.9	8.5	11.6	253.8	15.3	57.3
1952	374.9	[2] 2.1	13.8	17.5	[2] 8.6	13.4	251.4	[2] 13.8	54.2
1953	356.2	----------	14.1	16.4	----------	12.8	237.6	----------	52.4
1954	319.7	----------	12.3	13.3	----------	11.0	216.1	----------	46.3
1955	327.0	----------	11.9	13.7	----------	11.0	220.3	----------	48.6
1956	327.3	----------	12.5	13.4	----------	11.7	218.5	----------	49.1
1957 [3]	193.2	----------	7.4	7.6	----------	6.9	129.4	----------	28.9

[1] Transportation, communication, and other public utilities.
[2] Comparable data not available after 1952.
[3] 1st half of year.

Source: U. S. Department of Commerce, Survey of Current Business, January 1954, January 1958.

New and small firms account for the vast majority of business failures (table 7). Between 1934 and 1957 firms with liabilities of $25,000 or less accounted for over 75 percent of all business failures resulting in loss to creditors as reported by Dun & Bradstreet; firms having liabilities in excess of $100,000 accounted for only a little over 5 percent. Firms no older than 5 years generally account for nearly 60 percent of all business failures, and those no older than 10 years for 80 to 85 percent. Most studies show that poor management, unanticipated competitive pressures, and lack of business experience are the most frequent causes of failure.[29] Contrary to the popular belief that most businesses fail from lack of capital, several studies have concluded that most failing businesses have access to more capital and credit than they can efficiently manage.[30] As one student of the problem has put it: "80 to 90 percent of failures are directly traceable to the man who fails." [31] This does not mean that public policies de-

[29] Cf. ibid., p. 90; A. D. H. Kaplan, Small Business: Its Place and Problems (McGraw-Hill, 1948), pp. 65–68; Emmett E. Barbee, Reasons for Failure, Credit and Financial Management, November 1941, p. 20; John A. Cover, Business and Personal Failure and Adjustment in Chicago, Journal of Business of the University of Chicago, July 1933, pt. II; U. S. Department of Commerce, Business Failures in New Jersey, Domestic Commerce Series, No. 54 (November 1931), p. 20.
[30] Department of Commerce, op. cit., p. 20; Richard Sanzo, op. cit., pp. 47, 90.
[31] Barbee, op. cit., p. 20.

signed to make capital and credit more readily available to small and young enterprises would not eliminate a certain number of failures, but it does mean that such policies will not solve the problem of business failure in a free society where inexperienced men are free to try their hand at a wide variety of ventures.

TABLE 7.—*Percentage of business failures, by size of liabilities and age*

Year	Years in business			Liabilities (thousands of dollars)				
	5 or less	6 to 10	Over 10	Under 5	5 to 25	25 to 100	100 to 1,000	1,000 and over
1934				38.1	44.2	12.2	5.1	0.4
1937				40.8	45.8	10.4	2.8	0.2
1940				50.6	40.0	7.8	1.5	0.1
1946				23.3	43.2	22.3	10.6	0.6
1949				20.7	50.3	23.2	5.6	0.2
1952	60	26	14	18.8	51.0	23.3	6.7	0.2
1955	57	26	17	16.3	49.0	26.6	7.5	0.3
1957	[1] 57	[1] 23	[1] 20	[2] 14.8	[2] 49.0	[2] 27.3	[2] 8.5	[2] 0.4

[1] January–June.
[2] January–September.

Source: Richard Sanzo, What's Behind the Rise in Business Failures?, Dun's Review and Modern Industry, December 1957, p. 47.

A discernible development in recent years is an increase in the average size and age of failing firms. In the 1930's firms having liabilities under $5,000 accounted for over 40 percent of all failures, while those having liabilities between $25,000 and $1 million accounted for only 10 to 15 percent. In 1955–57 the under $5,000 class of liabilities accounted for only 15 percent of failures, while the $25,000 to $1 million class accounted for 35 percent. Inflation undoubtedly accounts for much of the shift; in monetary terms the cost of entry into most businesses has risen significantly. But the recent tendency for firms to live a little longer before they fail also accounts for a portion of the shift. In 1952 firms no older than 5 years accounted for 60 percent of the failures; in 1955–57 they accounted for 57 percent. Meanwhile, the percentage of failures accounted for by firms at least 10 years old increased from 14 to 20 percent. Older firms that fail are likely to accumulate heavier liabilities than very young firms.

Recent cyclical decline in the overall position of small business

The principal characteristic of small business in terms of long-run trends is the stability of its relative position in the American economy. Virtually every means of measurement shows that this position has undergone no perceptible change over the past 30 to 40 years. However, since 1947 (as in earlier periods) small business has experienced several cyclical ups and downs, and its manufacturing sector has generally tended to fare somewhat worse than business generally.

In 1947 the annual rate of earnings (before Federal income taxes) on stockholders' equity was 27.8 percent for manufacturing corporations having assets under $1 million. The earnings rate declined to 12.9 percent in 1949, rose to 21.8 percent in 1950, declined to 16.9 percent in 1952, and further to 15.4 percent by the first quarter of 1956.[32] Toward the end of 1957 earnings again declined. Using 1947–49 as

[32] SBA, op. cit., p. 16.

100, the index of earnings in the first quarter of 1955 for manufacturing corporations with less than $1 million in assets was 82 before taxes and 78 after taxes; the corresponding indexes of manufacturing corporations having $1 million and over in assets were respectively 167 and 140. Total volume of sales for small manufacturing businesses has tended to fluctuate around 1947–49 levels since 1953; that for larger business has risen about 58 percent.

Business discontinuances, which fall largely in the small-business sector, have tended to increase in the period 1953–57. For all industries discontinuances increased from 306,300 in 1952 to 338,900 in 1956. Undoubtedly the increase in business discontinuances in recent years reflects the extraordinary bulge in business starts which began to manifest itself after 1943 and reached an alltime peak in 1946 of 617,400 per year.[33] Many GI's who started businesses in 1945–46 failed for a variety of reasons or discontinued in the years that followed. Their losses cut down the average profitability of small business generally.

In the manufacturing sector, mergers, failures, and discontinuances for other reasons cut down the firm population from 329,600 to 309,000 between 1952 and June 1957. Undoubtedly, much of the decline, including failures, occurred in the small-business sector. Some firms in the $1 million and under asset class graduated to the $1 million and over class, probably the more profitable ones; some graduated into or were absorbed into a larger class through merger, probably as many as 3,000. In 1954-55 discontinuances were especially high in furniture, electrical machinery, and leather and shoes, and fairly high in apparel, textiles, transportation equipment, machinery, primary metals, and paper. Leather and shoes, which had the third highest discontinuance rate, also had the third highest rate of new starts in 1945–47; paper had the ninth highest discontinuance rate and the sixth highest starts rate; primary metals the eighth highest discontinuance rate and the fourth highest starts rate; textiles and apparel had high starts rates in 1945–47 and ranked fourth in discontinuance rates in 1954-55. Chemicals, on the other hand, ranked relatively low in new starts in 1945–47 and did not make the 1954-55 high discontinuance list.

The long-run trend in the number of small-business firms, profits, and sales has been virtually unaffected by the recent developments in small-business manufacturing, most of which are probably a product of business growth and the high rate of business births in the immediate postwar period. These developments, rather than any perceptible long-run trend, have thrown the spotlight on small business in recent months.

SUMMARY AND CONCLUSIONS

All the economic indicators which measure the overall position of small business have shown remarkable stability throughout the past half century.

(1) The trend in industrial concentration appears to be approximately horizontal for the period 1900–1947, but to have risen slightly since 1947. The pattern among industries shows a great deal of

[33] This point is made by A. D. H. Kaplan in his testimony before the Senate Subcommittee on Banking and Currency, Hearings, Credit Needs of Small Business, 85th Cong., 1st sess., June 1957.

variation, tending to rise in more mature, finished product industries such as automobiles and to fall in such growth industries as electronic equipment and parts. Successful innovation, it appears, continues to spawn new manufacturing firms.

(2) Similarly, the long-run trend in vertical integration appears to be horizontal for all manufacturing, but shows wide variation in particular industries. Growing industries and industries just reaching maturity create new firms through vertical disintegration. In relatively old and mature industries—such as the textile and steel industries—vertical integration tends to increase, often through merger.[34]

(3) There are now no available means for measuring quantatively the effect of trends in policy on trends in small business. But it is reasonably certain that the trend has been toward more vigorous antitrust, and this has improved the climate for small-business firms.

(4) While manufacturing firms are growing larger, it is doubtful that increasing economies of scale have excluded growth of small business. Some of the growth in firm size is probably due to scale economies in research, development, and selling and marketing rather than in optimum plant size, but the pattern varies widely among industries. While economies of scale are likely to be important in these functions of the firm, they do not seem to have appreciably altered the overall position of small business in manufacturing.

(5) The total business population moves in broad proportion to such variables as population and real national income, and the portion of total firms falling in the smaller size classes appears to stay very close to 98 percent. The vast majority of business firms in the American economy are still small firms, and their share of employment and output has shown no long-run tendency to change.

(6) Underlying the stable overall position of small business are a variety of counterbalancing forces.

Some industries grow more or less steadily and in proportion to population growth and the general level of business activity; wholesale and retail trade are examples of such industries. In new and growing manufacturing industries, there is a tendency for the number of small firms to rise and for concentration to decline; in older industries, for concentration to rise and the number of small firms to rise slowly or actually decline; but there are notable exceptions to these tendencies.

While most major industrial sectors tend to grow in firm numbers, net increases vary widely among such sectors. The net increases result from a variety of patterns of business failures and other types of discontinuances relative to new business starts. The basic fact is that currently there are nearly 1,300,000 more firms in operation than in 1929, and the overwhelming majority of them are small.

Generally, the number of business failures is directly related to the volume of new business starts and the industry's total population. Net growth in firm numbers is generally accompanied by increases in new businesses and discontinuances, with new businesses increasing earlier and proportionately more than discontinuances.

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[34] J. W. Markham, Integration in the Textile Industry, Harvard Business Review, January 1950, pp. 74–88.

(7) Business failure falls heavily on new and small enterprises. The causes of such failures are extremely complex, but most studies show that the lack of business ability and experience is an important cause. Public policy may possibly prevent some failures that would otherwise occur, but it is doubtful that it could—or should—significantly alter the level and incidence of business failures. In a free society men are free to make first attempts at running businesses. It is inevitable that many of them fail in the first few years, while others go on to success. It is highly doubtful that public policy can or should attempt significantly to alter this pattern, although apparent and identifiable restraints of trade should be eliminated. But any massive attempt to restrict the freedom to fail would probably eliminate some outstanding successes, and any such attempt to make entry to business easier would very likely increase failures later on.

Since 1952 the position of small business units in manufacturing with less than $1 million in assets has tended to decline relative to manufacturing generally. Neither profits nor sales have kept pace with the rest of manufacturing. The rise in discontinuances relative to new business starts and the graduation of small manufacurers to a large asset class have shrunk the ranks of small manufacturers, accounting in part for the relative decline in the under $1 million asset class.

In the economy as a whole, business discontinuances in 1953–54, and in the first half of 1957, rose relative to new business starts, but did not prevent the total business population from rising. Some of the increase in discontinuances undoubtedly resulted from the great increases in new business starts immediately after World War II. Since 1952 both the age and the size of failing firms have tended to increase.

None of these post-1952 developments, limited to the manufacturing field, have perceptibly altered the course of long-run trends in small business, but they may account for much of the renewed concern over small business and its place in the American economy.

10. THE SURVIVAL OF SMALL MANUFACTURING BUSINESSES [1]

INTRODUCTION

Why small business has continued to dominate certain American manufacturing industries is a question which seems as important as the subject of concentration in industry. Economists have paid considerable attention to concentration of ownership and control. Yet there are still many industries where concentration ratios are low and where the trends of mergers, acquisitions, and discontinuances do not seem to be leading to substantially higher degrees of concentration.[2] Also, the survival of small business in some industries where concentration is high suggests that, in the absence of major technological and institutional changes, the smaller business enterprise can face the future with considerable confidence.

The particular question to be dealt with in this paper involves the tangible factors which appear to explain the survival and relative prosperity of smaller business enterprise in manufacturing industries. The theory of the firm suggests several possibilities. If these hypotheses could be examined in light of the experience of some selected industries with a substantial number of concerns, we should have same better idea of the broad economic forces making for small-business survival and success.

The first section deals with the reasons for small-business survival which arise from general economic considerations. In the following section five relatively long-established manufacturing industries which have been selected for study are analyzed. Subsequently the several hypotheses will be tested using such statistical and other material for the five selected industries as is available.

Two reasons have dictated a cross-section type of analysis. First, we are searching for general reasons as well as for factors which apply to particular industries only. The second reason was the time limitation. It seemed best to organize the available materials in a way which

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James E. McNulty is currently associate professor of industry at the Wharton School of the University of Pennsylvania. Dr. McNulty has in his background substantial business as well as academic contact. After being educated in the Oak Park, Ill., Elementary and High Schools and at Harvard University, where he received his doctorate, he joined Standard Oil Co. (New Jersey) as a business forecaster and economist. Subsequently he worked with the New York Journal of Commerce as synthetic textiles editor. He has also served as consultant to various firms on economic and management questions. Since his return to the field of education, first as assistant professor of business economics at the University of California at Los Angeles, and now as associate professor at the Wharton School, Dr. McNulty has been conducting field studies in matters realted to business organization and policies. Some of his pertinent writings include: (1) Internal Business Organization and Market Structure: The Concept of the Multiple Firm, Proceedings of the Western Economic Association, 1952; (2) Farm Tenure and Costs of Borrowing, Journal of Farm Economics, vol. XXXVII, No. 2 (May 1955); (3) Administrative Cost and Scale of Operations in the United States Electric Power Industry, Journal of Industrial Economics, vol. V, No. 1 (November 1956).

[2] Cf. U. S. Federal Trade Commission, Changes in Concentration in Manufacturing, 1935 to 1947 and 1950 (1954), appendix C; J. Lintner and K. Butters, Effect of Mergers on Industrial Concentration, 1940–47, Review of Economics and Statistics (February 1950), pp. 30–48.

promised to maximize the number of valid inferences which could be drawn from them.

CIRCUMSTANCES FAVORABLE TO SMALL MANUFACTURING ENTERPRISES

While economic theory has perhaps been more frequently concerned with depicting the optimum combination of productive agents in business enterprise, there has nevertheless been considerable attention, directly and by implication, to the subject of lower and upper limits of efficient operation. Basic technical considerations involving indivisibilities of productive agents have always been a central feature of discussions of the minimum efficient size of the firm. Difficulties of a purely technical nature have likewise ben cited as setting an upper limit to business size. However, in both cases attention has been paid also to the impact of market and institutional forces, as well as the interrelationship of these with technical factors.

Technical divisibility

Efficiency in a technical sense is the major economic criterion both for the survival of enterprises and for their size characteristic. It is conceded that in some cases efficiency cannot be achieved and that, therefore, firms will have to exist which are not of efficient size, or if they are of efficient size, are not operating at full capacity. An example might be an electric utility operating in a remote, sparsely populated area. Such cases are properly regraded as exceptional, however.

In general, the technical condition for the existence of a small enterprise in an industry is that all productive agents be sufficiently divisible, that is to soy, available in sizes which make possible comparatively efficient combinations of the productive agents at all outputs up to the largest efficient output. This condition is neither necessary nor sufficient, as will become clear below in the next subsection of this paper. In markets which are highly competitive, however, a given degree of divisibility will favor smaller sizes of business enterprise.

The divisibility characteristic must extend to all productive agents. thus, if plant and equipment are divisible and management is not, the size of the firm will not be so small as would be dictated by plant and equipment considerations.[3] In this context, the "top" managers of a business might find that using modern management techniques their span of control far exceeded the management problem of one plant of the minimum efficient scale. Unless it were possible for these top managers to operate on a part-time basis and they chose to do so, they would either build a larger plant or, if this turned out not to be efficient, acquire other plants. The size of the firm could, therefore, be very large. It is clear that the scope of any investigation into efficient size of enterprise must encompass much more than the question of the optimum-size plant.

While divisibility may permit firms that are small in terms of output, they may still have relatively large capital requirements for efficient size. The size of the capital requirement for a business depends upon the amounts of the productive agents which are required

[3] Cf. E. A. G. Robinson. The Structure of Competitive Industry (London : Nisbet, 1931).

and the prices of these required productive agents.[4] In no significant area are investment requirements likely to approach zero.

If the constant returns to scale of production which are implied by divisibility should extend to very large outputs, enterprise size could be very large. Existence of smaller firms might then perhaps reflect some sort of chance process whereby a number of firms succeed in filling up an industry.[5] A more likely explanation for the limitation of the size of firms in these circumstances, however, would be the operation of nontechnical factors, such as the financial risk to investors of putting ever-increasing funds under the control of one management and in one line of business activity, especially if the enterprise is relatively undiversified.[6]

Market and institutional forces

A number of additional considerations can operate to offset the relationship between divisibility and enterprise size. In general, all of these considerations have to do with conditions which may prevail in connection with selling and buying products and productive agents.

As was intimated earlier, small markets favor small firms unless, of course, diversification is possible and economical.[7] There are undoubtedly some classes of commodities produced by highly specialized producers for a relatively small number of consumers. Fine violins might be a case in point. Geographical dispersion with transportation costs sufficiently high so as to offset economies of scale in production and/or involving products which require close coordination between supplier and customer probably is a much more significant cause of small markets.

Another type of market segmentation would arise because of consumer preferences for product differentiation. Preferences on the part of ultimate consumers for a wide variety of individual styles are usually cited in this connection. Lack of standardization in the requirements of industrial customers is the corresponding case for industries selling to other industries. While what might be described as superficial differentiation of the product, for example, different package labels, present few, if any, restraints on a large-scale operation, differentiation which results in short production runs, special treatment of customers, and detailed problems of management vitiate economies of scale. Unless there are other economies of scale in such areas as management, marketing, purchasing, etc., one expects to find small-firm industries in such instances.

Product markets which react violently to changes in the general level of demand will also probably tend to favor smaller enterprises, unless offsetting diversification by producers is possible and otherwise economical. The problem posed by widely fluctuating demand for a product is one of the risks connected with large-scale investment in such product lines. For some reasons, a larger enterprise would be favored, especially if it had substantial reserves to cope with instability. But there seems little doubt that conservative financial management from the point of view of either corporate management or the

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[4] Cf. J. S. Bain, Barriers to New Competition (Harvard University Press, 1956), pp. 56 ff.
[5] Cf. F. H. Knight, Risk, Uncertainty and Profit (London: London School of Economics, 1930), preface to 2d edition.
[6] Cf. T. Scitovsky, Welfare Economics (Richard D. Irwin, 1951).
[7] Cf. R. H. Coase, The Nature of the Firm, Economica, New Series, vol. IV (1937), pp. 386–405; reprinted in American Economic Association, Readings in Price Theory (Richard D. Irwin, 1952), pp. 331–352.

individual investor would not permit concentration of investment in product lines whose demands were unstable unless there were offsetting factors.

Finally, among the forces which may favor small business is to be cited what might be described as a lack of specialized suppliers to an industry. Whether a market is inherently too small to support a specialized supplier, or simply because of poor market organization, the effect is to require deeper production operations, that is to say, production operations with a larger number of distinct parts.[8] To the extent that such deepening of production presents special problems of coordination by the top management of an enterprise, a limit will tend to be set on enterprise size. Where, of course, integration of operations helps coordination, the further expansion of an enterprise will be favored.

Larger enterprise will, of course, be favored by the reverse of the situations which have been cited above as being favorable to small business. In addition, control of the supply or relatively exclusive access to the supplies of essential productive agents by particular firms will give these firms an advantage over other firms and thus allow the advantageously situated firms to become larger than they otherwise might become. While the absolute size of such firms clearly depends upon the impact of a number of other factors, as has been seen, it will certainly be true that the entry and relative fortunes of other firms will not be made easier when supplies of essential productive agents are available only to the few. One cannot really expect smaller business domination of an industry in the absence of relatively equal access to the essential agents of production including especially raw materials and money capital.

Summary

From general analysis we thus receive a number of suggestions relating to both technical and market conditions, which can be used to explain the survival and relative prosperity of small business in a given industry. Some of these forces may turn out to be more important than others. Also, particular combinations of the several forces may have been important for the prevalence of small business operation of some industries. It is for these reasons that we now turn to a sample of selected and typical small business industries.

THE SAMPLE OF INDUSTRIES

Five manufacturing industries were chosen for purposes of empirical analysis. It would be perhaps more accurate to say that five narrowly defined industries are given the main attention, but because of the problem of availability of data the major industrial groupings in which the narrowly defined industries fall (or to which, in one case, the narrowly defined industry seemed to have the closest relationship) were also given occasional consideration. The five narrowly defined industries are knit outerwear (the sweater trade), wood furniture not upholstered (case goods), footwear except rubber, commercial (job) printing, and metal stampings.

[8] Cf. J. Dean, Managerial Economics (Prentice-Hall, 1950), ch. 5.

These industries were chosen within limits imposed by availability of material to include both consumer and producer goods industries and also to cover nondurable as well as durable goods. Only industries of some significance which, in terms of a variety of tests, seemed to offer a place for enterprises of, let us say, 250 employees or less and $500,000 or less total assets were considered for selection.[9]

Data on number of establishments, employees, and value added in 1954, by employee size classes, are given for the five industries in table 1. While the larger establishments, in spite of the fact that they are relatively few, account for substantial proportions of employment and value added for their respective industries (even higher proportions obtain for size distributions by firms, as will become clear from the data presented in the section below on multiplant ownership) this concentration in these industries has been smaller than for American manufacturing as a whole.[10] Available comparative data on concentration of employment in the first 4 firms during 1950 give the "concentration ratios" for furniture not upholstered as 0.06, for footwear except rubber as 0.22, for commercial printing as 0.09, and for metal stamping as 0.17.[11] These figures can be compared with, for example, a concentration ratio of 0.47 for meatpacking, 0.81 for cigarettes, 0.40 for petroleum refining, 0.78 for tires and tubes, and 0.59 for motor vehicles and parts.[12] With the exception of footwear the quoted ratios for the industries being studied are very low, and the footwear industry, as will be pointed out below, has some special features which tend to segment it.

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[9] These are two of the standards used by A. D. H. Kaplan, Small Business: Its Place and Problems (McGraw-Hill, 1948).

[10] Cf. U. S. Department of Commerce, Survey of Current Business, May 1954, Betty C. Churchill, Size Characteristics of the Business Population, pp. 15–24.

[11] U. S. Federal Trade Commission, op. cit.

[12] Ibid.

TABLE 1.—*Number of establishments and employees and value added, by employment classes, selected manufacturing industries, 1954*

Industry and item	Number of employees in establishment								
	1–4	5–9	10–19	20–49	50–99	100–249	250–499	500–999	1,000 and over
Knit outerwear manufacturers: [1]									
Number of establishments	120	78	83	116	72	59	16	5	1
Number of employees	303	558	1,170	3,758	5,121	9,154	5,459	4,525	(2)
Value added (thousand dollars)	1,963	7,844	5,692	17,322	23,348	42,085	22,271	18,926	(2)
Wood furniture (not upholstered):									
Number of establishments	1,030	428	369	406	234	217	71	22	8
Number of employees	2,411	3,055	5,242	12,744	16,383	35,160	25,452	14,173	10,276
Value added (thousand dollars)	11,914	15,666	24,763	60,296	79,378	165,942	123,530	67,510	43,711
Footwear (except rubber):									
Number of establishments	141	56	68	154	144	286	266	71	10
Number of employees	318	413	1,007	5,308	10,623	48,279	93,229	45,775	14,419
Value added (thousand dollars)	1,331	1,633	3,361	19,092	45,129	192,648	410,489	200,357	66,660
Commercial printing:									
Number of establishments	6,640	2,294	1,468	1,043	353	193	51	14	17
Number of employees	15,793	16,188	20,577	32,075	23,303	30,493	17,968	9,953	32,879
Value added (thousand dollars)	98,059	97,492	131,098	204,456	164,994	215,267	124,377	71,369	250,703
Metal stamping:									
Number of establishments	587	361	424	417	220	156	64	28	12
Number of employees	1,475	2,634	6,216	13,253	15,678	24,291	22,060	20,496	22,095
Value added (thousand dollars)	9,589	18,087	41,865	91,613	114,903	171,232	154,841	163,426	157,378

[1] The knit outerwear industry includes manufacturers, contractors, and converters. Only manufacturers are primarily engaged in both production and marketing.
[2] Combined with previous class for reasons of confidence.

Source: U. S. Bureau of the Census, 1954 Census of Manufactures.

Performance in terms of profits is, of course, a relevant criterion of a successful enterprise. Presumably the industries which have been selected in this study should be characterized by favorable profit performance for smaller firms, or at least by favorable profit performance for these small firms in comparison with the relative profit performance of smaller and larger firms in other industries. Unfortunately, published data are available only for the major manufacturing industries in which the selected industries fall or, in the case of apparel and knit outerwear, to which there seemed the closest affinity.

Calculations of the percentage return on net worth for corporations in the relevant major industries in 1954, the most recent year for which data are currently available, appear in table 2. It is seen from these data that firms in the asset classes ranging from $100,000 to $500,000 generally realized profits in all of the five major industry classifications, although, except for printing and fabricated metals, the profit rates were not so high as the rate for all manufacturing in this asset range, and in all cases not so high as the rate for larger

firms in the several industries. Also, firms with total assets under $50,000 show losses in 4 of the industries shown and profits in 2 (printing, publishing, and allied industries, and leather and leather products). Apparel and furniture firms with total assets of less than $100,000 were also generally unprofitable, although in the case of apparel the uniformly low profit rates for all size classes in comparison with the corresponding size classes of all manufacturing suggest that the year 1954 was an unusually poor year for profits. This is possibly the case also for the leather and leather products group.

TABLE 2.—*Ratio of profits (before taxes) to net worth, corporations in selected major manufacturing industries, by asset classes, 1954*

[Percent]

Industry	Total assets (thousands of dollars)							
	Under 25	25–50	50–100	100–250	250–500	1,000–2,500	5,000–10,000	50,000–100,000
Apparel and products made from fabrics	(45.0)	(8.5)	(0.3)	3.4	6.3	8.9	10.0	6.0
Furniture and fixtures	(69.0)	(15.8)	(4.2)	3.9	6.3	11.4	14.1	13.2
Printing, publishing and allied industries	(80.2)	4.0	8.5	9.3	11.7	15.1	14.1	10.5
Leather and leather products	(68.2)	5.0	(2.4)	4.5	7.3	12.0	10.5	8.2
Fabricated metals, except ordnance, machinery, and transportation equipment	(161.5)	(6.7)	4.7	7.4	9.6	12.8	14.5	24.0
All manufacturing	(51.8)	(4.7)	2.6	5.9	8.9	11.1	12.4	13.2

NOTE.—Calculated from U. S. Internal Revenue Service, Statistics of Income, 1954. Figures in parenthesis indicate losses.

These data are, of course, too broad in their coverage to be reliable as indicators of the profit performance of smaller firms in the five narrowly defined industries being studied. They do suggest, however, that smaller enterprises may need particularly favorable circumstances, e. g., in terms of production economies and ability to attract customers, in order to be profitable, and also that in certain industries enterprises below a certain size, perhaps total assets of $25,000, are not likely in any circumstances to be profitable.

DIVISIBILITY OF PRODUCTIVE AGENTS; CAPITAL REQUIREMENTS FOR EFFICIENT OPERATION

Capital-output relationships

Stanley Schor calculated the ratio in 1947 of fixed capital to sales by total asset classes for three of the industries studied in this paper.[13] These data are shown in table 3. The calculations are for 1 year only. Also, while they are the most recent known to be available, they are 10 years old. Nevertheless, when used with more recent information of a qualitative nature they throw light on the question of whether or not technical divisibility of plant and equipment is a characteristic of the industries shown.

[13] Stanley S. Schor, The Capital Product Ratio and Size of Establishment for Manufacturing Industries (unpublished Ph. D. dissertation, University of Pennsylvania, 1952). Schor includes underwear as well as outerwear in his knit-goods data.

TABLE 3.—*Ratio of fixed capital to sales of net income firms by asset classes, selected manufacturing industries, 1947*

[Percent]

Total assets (thousand dollars)	Knit goods	Footwear	Commercial printing
Under 50	13.3	4.9	13.2
50-100	14.3	4.3	13.8
100-250	14.2	4.4	15.1
250-500	13.2	3.8	13.3
500-1,000	13.3	3.2	13.2
1,000-5,000	12.3	5.0	15.4
5,000-10,000	16.6	5.8	18.9
10,000-50,000	14.1	3.5	20.7
50,000-100,000	----------	8.7	----------
100,000 and over	----------	8.9	----------

Source: Stanley S. Schor, The Capital Product Ratio and Size of Establishment for Manufacturing Industries (unpublished Ph. D. dissertation, University of Pennsylvania, 1952).

Of the three industries, knit goods appears to have the most stable relationship between fixed capital and sales as size increases. It is quite possible, however, that the physical relationships implied by the ratios for knit goods are slightly overstated for the larger asset-size firms. The actual amount of plant and equipment needed to produce a unit of output may be smaller than appears from the table since the unit value in the market of mass-produced goods is likely to be lower; and Schor uses market values for his estimates.

In the case of footwear the ratio is reasonably stable up to the two highest asset classes (total assets of $50 million and over) for which the ratios quite probably reflect special conditions since the large firms are known to specialize in lower priced footwear.[14] For commercial printing the ratio of fixed capital to sales is relatively stable up to the firms with $5 million or more in total assets. There is likely to be overstatement for the larger firms in this industry also, since the growth of large-scale commercial printing is usually attributed to the demands of customers for very large quantities of highly standardized items.[15]

Generally, the available qualitative information on the three industries discussed in the preceding paragraphs, as well as on the wood furniture not upholstered and the metal stamping industries, tends to confirm the suggestion in the data cited above to the effect that large-scale operation is not advantageous as far as plant and equipment economies are concerned. Sources in the knit outerwear trade have stated to the author that improvements in machinery in recent years have favored small as well as large producers. This is generally the case in commercial printing, although there have been some developments which favor larger firms exclusively. In his study of the furniture industry, Davis notes that case goods production in all sizes of firms, while it involves relatively expensive woodworking machinery, also involves skilled labor, presumably in the same propor-

[14] Cf. E. A. Alderfer and H. Michl, Economics of American Industry (3d ed., McGraw-Hill, 1957), pp. 477 ff.

[15] Cf. E. C. Brown, Book and Job Printing, How Collective Bargaining Works (Twentieth Century Fund, 1942), pp. 121 ff.

tions, to operate the machinery.[16] And in their visit to the American pressed metals firms, the British productivity team described operations as mechanized but operated by hand.[17]

Of supplementary interest are Bain's more recent estimates of efficient plant size in the shoe industry. These data, which are based on engineering judgment, suggest that the optimum-size plant would account for one-third to 1½ percent of the industry's production in the biggest actual product market in the industry and from 8 to 10 percent in the smallest.[18] He finds, further, that relative unit costs of shoes increase 1 to 10 percent with smaller than optimum-size plants. His conclusion is that in the case of shoes it is of very little economic importance that a plant size be less than optimum.

The sum of all of the above information, both quantitative and qualitative, seems to be that plant and equipment are relatively divisable in the industries which have been selected. Therefore, there would be no particular technical economies associated with larger scale plants and firms.

Multiplant operations

The technical grounds favoring small enterprise extended to the divisibility of other productive agents besides plant and equipment. Also, where management is indivisible multiplant operation could be one result. However, the existence or nonexistence of multiplant operation does not prove or disprove possible economies of scale in management.

Data for 1954 on multiunit operations in the five industries are presented in table 4. It is seen that in the cases of knit outerwear, unupholstered wood furniture, and commercial printing, the proportions of establishments and employees included in multiunit operations were well below those for all manufacturing. The proportions for metal stamping were closer to those for all manufacturing, and the proportion of footwear establishments (though not of employees) which were parts of multiunit firms was over twice that for all manufacturing.

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[16] Kenneth R. Davis; Furniture Marketing (University of North Carolina Press, 1957), ch. 4.
[17] Anglo-American Council on Productivity, Pressed Metals Report.
[18] Bain, op. cit., pp. 72 ff.

TABLE 4.—*Multiunit operations in selected manufacturing industries, 1954*

Industry	Number		Percentage in multiunit ownership
	All establishments	Multiunit ownership	
Knit outerwear: [1]			
Establishments	1,083	34	3
Employees	46,403	7,942	17
Wood furniture (not upholstered):			
Establishments	2,785	165	6
Employees	124,898	36,000	29
Commercial printing:			
Establishments	12,073	331	3
Employees	200,233	65,223	32
Footwear (except rubber):			
Establishments	1,196	317	27
Employees	219,375	112,106	51
Metal stamping:			
Establishments	2,269	186	8
Employees	128,200	61,626	48
All manufacturing:			
Establishments	286,817	31,772	11
Employees	15,651,000	9,486,000	61

[1] See table 1, footnote 1.

Source: 1954 Census of Manufactures.

The production of shoes has been described as a "machine-assisted hand operaiton," one with many distinct operations and machines and calling for skilled operations at every stage.[19] On the other hand, the several plants in a multiunit shoe enterprise are characteristically so specialized that each plant produces some particular part or parts of the whole shoe.[20] Since we have already noted evidence to the effect that economies from size through the better use of plant and equipment are negligible, and since indeed the data in table 4 tell us that on the average the individual plants of multiunit footwear firms are smaller in terms of number of employees than are single-unit firms, it seems not unlikely that multiplant operation in shoe manufacturing is accompanied by a saving in management through the specialization of the responsibilities of plant management. Were the footwear industry more dispersed geographically than it is, this deduction would be less defensible.[21] As things are, it can be debated whether or not we have here an example of an indivisibility of the management agent in terms of the definition given earlier, or merely the same results achieved through the improved organizaiton possible with larger outputs. In either case, however, the utilization of management would appear to be more satisfactory with larger outputs. Given this conclusion, the survival and relative prosperity of smaller enterprises in the shoe industry would seem to depend upon the existence of blocks to specialization in production such as might arise, for example, as the result of the style factor in women's shoes or the demand for custom-made men's shoes.

[19] Cf. Ruth P. Mack, Consumption and Business Fluctuations: A Case Study of the Shoe, Leather, Hide Sequence (National Bureau of Economic Research, 1956), pp. 17 ff.
[20] Cf. Alderfer and Michl, op. cit., pp. 477 ff.
[21] See table 5, infra.

Whether or not the possibilities for improving the utilization of management through specialized organization of production exist for the other four industries which are being studied is a matter on which there seems to be little evidence. One suspects that possibilities do exist in some types of metal stamping, e. g., for the stamping of consumer products or large volume industrial stampings, especially given the data in table 4 which show a higher degree of concentration of establishments and employment in multiplant operations for metal stampings as compared with knit outerwear, wood furniture not upholstered, and commercial printing.

Capital requirements

In spite of the evidence which suggests relative divisibility of plant and equipment in the five industries, it appears that an investment in fixed equipment of some size is often required. The footwear industry is a special case by virtue of the equipment rental policy of the shoe machinery supplier. And in the case of knit outerwear, it is presumably possible to avoid fixed capital investment by acting as a "converter" and contracting out manufacturing operations. According to industry sources, knit outwear capital requirements are also effectively reduced, at least for some of the enterprises in this field, by the existence of a well developed secondhand market in equipment.

In the other three industries, however, there appear to be no such mitigating circumstances, as far as fixed investment requirements are concerned. Fixed capital requirements in the unupholstered wood furniture industry are said to be high because of the number of separate machine operations required to turn out a piece of case goods.[22] In this machinery, too, there is apparently a substantial investment requirement for raw materials inventory, especially lumber.[23]

It was unfortunately not possible in the investigation underlying this paper to get access to balance-sheet data in order to obtain quantitative estimates of total capital requirements for efficient operation. Schor has estimated that in 1947 the average asset size of firms in commercial printing was $253,000, in knit goods $603,000, and in footwear $803,000. He also gives a figure of $437,000 for the combined wood and metal furniture industries.[24] Minimum or optimal requirements cannot be inferred from these estimates. Bain says that $500,000 is the minimum investment for an optimum-size shoe plant, although his estimate seems to be for the production of men's low-priced shoes, which are products of larger-scale manufacturing than is the case with other kinds of shoes.[25] The effective equity capital requirement for successful operation in the industries mentioned by Schor and Bain would, of course, be probably quite a bit less even if their estimates of total capital needed were to be taken as optimal.

It is of some interest to recall from table 2 that small firms (though not the smallest) in the major industrial groups, printing, and publishing, did very well by comparison with small firms in the other industrial groups. Both total and fixed capital requirements for successful operation would, on this basis, seem small for commercial printing by comparison with the other four industries being studied.

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[22] Cf. Davis, op. cit., ch. IV.
[23] Ibid.
[24] Cf. Schor, op. cit., appendix table E–3. The comparable figure for All Manufacturing was $1,459,000.
[25] Bain, op. cit., p. 157.

insofar as the data for the broader industrial classifications have any significance here. From the information available on knit outerwear, unupholstered wood furniture, and shoes, moreover, capital requirements for successful operation do not seem to be inordinately high.

Conclusion

The conclusions which seem to be derivable from the analysis in this section are, first, that plant and equipment characteristics do not generally favor larger enterprises in the five industries being studied; second, that there is some indication of economies in management utilization with larger enterprises, notably in the footwear industry; and third, that capital requirements for efficient operation, while variable as among the five industries, are perhaps lower than in most other branches of American manufacturing. These conclusions must be regarded as highly tentative in view of the fragmentary data upon which they are based. Also, as far as explaining the survival of small business in the five industries is concerned, the conclusions are somewhat limited. For this reason in particular we now turn to an examination of the other circumstances which were noted in the generaly analysis of circumstances favorable to small manufacturing enterprise as being pertinent to the question of small-business survival and prosperity.

INFLUENCE OF MARKET ENVIRONMENT

Geographical segmentation of markets

In table 5, data on the location by region of all establishments (including those with 20 or more employees) in the 5 sample industries are summarized. These data show that 2 of the 5 industries—commercial printing and wood furniture—are relatively widely distributed throughout the country; there is some slight tendency toward geographical spread in the location of metal-stamping establishments.

Since apparently neither raw material nor labor market considerations account significantly for the geographical dispersion of these industries, one would infer that a natural geographical segmentation of the respective markets for at least some of the products of these industries is the appropriate explanation. Past industry studies bear out this inference for commercial printing and, although it is a comparatively recent phenomenon, for the wood furniture industry. As was mentioned earlier, there has been a growth of enterprises doing business more or less on a national basis in the commercial printing industry. By and large, however, commercial printing is a nonstandardized short-run operation for local customers who are unable or who find it uneconomical to overcome the communications and scheduling problems connected with doing business over great distances.[26]

There are, of course, some very predominant locational centers in the wood furniture industry, presumably because of the location, present or past, of raw materials, such as lumber, and/or the necessary skilled labor supply. On the other hand, furniture buyers, especially the retail establishments, are said increasingly to prefer to do business with furniture establishments which are located close

[26] Cf. Brown, loc. cit., pp. 121 ff.

by.[27] Both the increased speed of delivery and the resulting lower freight charges are responsible for this preference, which has been important in the movement of the furniture industry away from older centers.

TABLE 5.—*Distribution of establishments by region, selected manufacturing industries, 1954*

Census region	Knit outerwear manufacturers [1]		Footwear (except rubber)		Wood furniture (not upholstered)		Commercial printing		Metal stamping	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
New England	35	6.4	368	30.8	207	7.5	967	8.0	202	8.9
Middle Atlantic	330	60.0	344	28.8	704	25.3	3,469	28.8	593	26.0
East North Central	49	8.9	153	12.8	514	18.5	2,765	22.9	1,036	45.7
West North Central			117	9.6	99	3.6	971	8.0	109	4.8
South Atlantic					444	16.0	1,166	9.6	58	2.6
East South Central	29	5.3	137	11.6	158	5.7	375	3.1	20	.9
West South Central					134	4.8	782	6.5	21	.9
Mountain	57	10.4	77	6.4	58	2.1	275	2.3	9	.4
Pacific					467	16.5	1,303	10.8	221	9.8
Total	550	100.0	1,196	100.0	2,785	100.0	12,073	100.0	2,269	100.0

[1] See table 1, footnote 1.

Source: 1954 census of manufacturers.

In the case of the metal-stamping industry the observed tendency toward geographic dispersion is probably to be attributed to the need for some coordination between stamping establishments engaged in the production of relatively nonstandardized products for industrial users and their customers as well as to transportation cost factors affecting all types of stampings. Shipments data suggest that this is the case and that, therefore, geographical considerations are significant in determining the size of at least some metal-stamping establishments.[28] It seems significant that the Pacific coast region, which includes important industrial areas and a large population, ranks third among the regions with respect to metal-stamping establishments.

Product differentiation

In the two industries in which geographically dispersion is less, (knit outerwear and footwear, except rubber), it is well known that consumer preferences for distinctive style are important influences on demand and hence upon industrial structure. The fact that these preferences are volatile and subject to manipulation through relatively simple product differentiation by producers make for easy entry into (and exit from) the industry, other things being equal, and also for relatively short production runs. The "sweater trade" and women's shoes are notable for having these characteristics.

In the case of wood furniture, consumer preferences are apparently more invariant. However, they call for many distinctive styles and types of case goods, and manufacturers tend to specialize in one or a very few items. Davis intimates that this specialization is due to

[27] Cf. Davis, op. cit., p. 72.

[28] Cf. U. S. Bureau of the Census, U. S. Census of Manufactures, 1954, Industry Bulletin MC–34 D, Metal Stamping, Coating, and Engraving (1957), table 6 B.

a desire on the part of the manufacturers to avoid the complexity of multiproduct operations, as well as a need for outside capital, both of which would weaken traditional proprietary and family control.[29] Specialization by most manufacturers give the individual firm something of a natural market advantage, at least in the short run.[30] Also, as has already been noted, the local case goods manufacturer is increasingly favored by buyers.

No investigation was made of the relationship between changes in the level of general business conditions and the product demands of the five industries. However, style goods in knitwear, shoes, and furniture are likely to be rather sensitive to changes in business conditions. The demand for job printing, insofar as it is derived from the demand for advertising and from internal operations of business firms, is likely to have the same characteristic. And the demand for metal stampings should very markedly with business conditions, except for that part of the demand which is accounted for by defense production.

All of the five industries hence operate in product markets which appear to be significantly segmented, either geographically or productwise, and in which demand might be expected to fluctuate considerably over time. Such conditions favor smaller scale operation or, perhaps more accurately, disfavor larger enterprises unless the latter are able effectively and economically to operate on a diversified basis. It is perhaps of some significance here to note that, except in a relatively small number of instances involving standardized items, product differentiation in the five industries is not usually achieved through advertising directly to consumers as is ordinarily the case in the "mass production" industries, such as automobiles and cigarettes. Rather the essential ingredient for achieving market position in the five industries seems to be existence of substantial business of what might be best described as a custom nature.

Access to raw materials

There has been very little vertical integration backward in the cases of the five sample industries. In general the sources of major raw material supply for the industries would appear to be difficult for individual companies in the industries to control.

Knitting yarns, except for the synthetics, tanned leather, lumber of the types which are used in furniture, and coated paper stock are all commodities which are bought and sold in relatively competitive markets. In the case of the synthetic knitting yarns used in knit outerwear, paper of the newsprint variety, and primary metal stocks, the sources of supply are more highly concentrated.[31] However, in none of these cases is there substantial forward integration into the domains of the respective sample industries.

It is perhaps relevant to recall that there is effective supplier financing in the case of shoe machinery. Also there is supplier financing of equipment and raw materials for the wood furniture industry.[32]

[29] Cf. Davis, op. cit., ch. VI.
[30] Cf. Furniture—Stronghold of Small Business, Business Conditions (Federal Reserve Bank of Chicago, June 1956), pp. 5 ff.
[31] Cf. U. S. Federal Trade Commission, op. cit.
[32] Cf. Furniture—Stronghold of Small Business, op. cit.

Access to capital

The question of access by small business to money capital is very difficult to answer in any absolute sense. It does seem important, however, to attempt to assess the position of the sample industries with respect to the availability of outside financing.

Special credit agencies in the form of factoring institutions provide short-term financing of accounts receivable for the several apparel trades and for furniture. Other agencies, including the commercial banks, are also known to have developed special arrangements for the short-term financing of these industries.[33] In the case of the other three industries presumabily most short-term financing is done by the commercial banks.

Data are not available in appropriate detail on the activities related to small-business financing by agencies of the Federal and State Governments, and especially the Small Business Administration, to ascertain whether any of the five industries studied was particularly favored by their activities. There is a possibility that more than average financing support benefited the stamping industry.[34]

As in all other industries, plant and equipment necessary for starting business is usually financed predominantly out of the private savings of the entrepreneur and his acquaintances in the case of the shoe, furniture, and commercial printing industries, with, of course, the exception of shoe machinery.[35]

Conclusion

There would appear to be a number of market influences favorable to small enterprise in the five industries, although the quality and quantity of the information on which this conclusion is based is by no means without important shortcomings. As far as product markets are concerned, all of the industries except metal stamping appear to be protected effectively by either geographic or product segmentation of these markets.

And in the case of metal stamping there is some suggestion that segmentation is attainable both out of geographic considerations in the case of certain industrial end products and, perhaps more important, out of product improvements achieved through research.

The situations of the five industries are more diverse as far as their access to the various productive agents are concerned. Important raw materials for shoes, knit outerwear, commercial printing, and unupholstered furniture are purchased in competitive markets. It might be argued that this is not the case with other raw materials, such as those used in metal stamping. Also, the unupholstered furniture industry is favored by supplier financing. The footwear industry is clearly favored over the other industries in the sample by virtue of the rental policy of the machinery producer. The existence of financial institutions for the factoring of accounts receivable is a distinct advantage in the case of the knit outerwear and unupholstered furniture industries.

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[33] Roy A. Foulke, The Story of the Factor (Dun & Bradstreet, 1953), pp. 15 ff.

[34] Cf. R. J. Saulnier et al., Federal Programs of Lending, Loan Insurance and Loan Guaranties (National Bureau of Economic Research, 1957), appendix B.

[35] Cf. C. L. Merwin, Financing Small Corporations (National Bureau of Economic Research, 1942); Davis, op. cit.; Brown, loc. cit.; Laurence Bridge and L. E. Holmes, Capital Requirements of New Manufacturing Firms, Survey of Current Business (April 1950), passim and table 4.

SUMMARY AND CONCLUSIONS

To the extent that smaller enterprise has survived and prospered in the five industries studied, the explanation would seem to be that conditions were generally favorable in those industries for small-business operations. Investigation of the five industries with respect to the characteristics set forth as being favorable to small enterprise suggests that they tend to be descriptive of conditions which prevail in these industries.

It does seem true that certain of these conditions are more common than are others. For example, plant and equipment seemed to be relatively divisible in all cases, and products for one reason or another seemed generally to offer a place for the smaller enterprise. It was observed, on the other hand, that in some cases at least, notably footwear, specialization has favored multiplant operations as well as independent small plants. Some of the industries studied, moreover, appeared to have more favorable conditions of access to the productive agents than others. An example here would be the existence of supplier financing for the furniture industry or, in a more remote sense of the phrase, productvie agent, the existence of factoring institutions for the apparel trades, including knit outerwear, and for furniture.

It could almost be argued that the differences in conditions prevailing in the several industries are as important as the similarities. For example, geographical factors appear to help the market position of the small commercial printing enterprise, the complexity of consumer preferences that of the small knit outerwear firm, and a combination of geography and general producer disinterest in multiproduct furniture operations the position of the smaller case goods manufacturer. These are important differences in that they suggest ultimate differences in the basis for past and current small-business dominance in the industries studied, even where the otherwise justifiable simplifications of economic analysis suggest similarities. In any projection into the future of the role of small business in the industries studied, this complexity of underlying forces certainly would have to be remembered and dealt with in appropriate detail.

The conclusions of this paper are, of course, limited rather severely by the paucity of certain necessary information and by questions of applicability surrounding some of the data which have been used. These problems have been pointed out above as they have been encountered in the course of the analysis. However, it might be observed further that in the case of some of the conditions studied, in particular the availability of financing to the five industries, a great deal of basic data are not available.

11. EFFECTS OF LONG-RUN SHIFTS IN DEMAND FOR FINAL PRODUCT ON THE POSITION OF SMALL BUSINESS [1]

INTRODUCTION AND SUMMARY

Analysis of the effects of long-run shifts in demand on the position of small business should consider 3 dimensions of simultaneous change: (1) the balance among the main sectors of demand, notable the changing ratio between Government and consumer purchases, (2) internal shifts in the composition of the major sectors of demand and (3) changes in the relative position of small business in specific product and service lines. The present paper constitutes a selective consideration of changes on the first two levels, with very little attention to the third.[2]

The aggregative sectors discussed are those of consumer and Government purchases. Export and investment demands are not explored. Consideration of changes in the methods of production to meet given final demand is also omitted. These self-imposed limitations were necessary because of the wide range of the general topic. The resulting discussion should be viewed as an essay in a treacherous, but possibly promising, direction: An attempt to sketch some of the links between changes in final goods wanted by the community and the relative roles of small and large business units.

The empirical material used here starts from the side of demand and proceeds by associating particular industries with smaller or larger firms. Different bases of selection among industries are used in different contexts, depending on the nature of the data available. In the following section, manufacturing industries are ranked with respect to the importance of small firms on the basis of the proportion of total value added by establishments with less than 500 employees. The furniture industry is considered to be more nearly associated with small concerns than the transport equipment industry, because the stated proportion is 79 percent in the first instance and 11 percent in the latter.

When dealing with Federal Government procurement, the term "small business" is used as defined by the Small Business Administration. For manufacturing, it includes substantially all firms with fewer than 500 employees, and larger firms with a maximum of 1,000

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[2] See study 9 (Markham), p. 197, on the changing small business position within industries.

employees if they can be certified as independently owned and not dominant in their industries. For nonmanufacturing industries, concerns are included if they meet the above requirements and also "furnish the product of a small manufacturer or producer." [3]

It will readily be appreciated that the identification of a particular industry with small business is a procedure replete with pitfalls. On the one hand, the methods of classification used represents an arbitrary choice. More importantly, the nature of the approach overemphasizes the effect of demand changes in determining the relative position of the small business. It assumes that shifts are favorable for small firms if demand alters toward food, clothing, personal services, furniture, and housing, and unfavorable if defense procurement places increasing weight on missiles and less on uniforms. However, growth of small business very much depends in every case on whether the small or the larger concerns are more effective in meeting new as well as larger demands, and this can hardly be deduced with confidence from data on the present share of small establishments within existing industries.

Given the necessity of caution in interpretation, it remains fairly clear that demand trends have not on balance been favorable for smaller firms. Analysis of data on output composition in 1929–56 and more particularly for the most recent decade suggests that in both periods (*a*) the manufacturing industries more closely associated with small concerns grew much less rapidly than total manufacturing, and (*b*) manufacturing as a whole expanded more rapidly than the combined "small business" fields of trade, construction, and services. None of the latter fields expanded so rapidly as manufacturing during the entire 1929–56 period, but the construction and service industries taken separately did grow more rapidly between 1947 and 1956.

The section "Consumer Demand" reviews trends in the composition of consumer expenditures since 1909. The changes observed have been more favorable for industries in which larger firms predominate, but not nearly to the same degree as noted for the changes in total output. Earlier trends toward decreasing relative expenditures on food and housing, which held for the period 1909–29, seem to have been reversed since then more by basic than by cyclical forces. Basic behavioral changes with respect to size of family, the development of suburban living, increasing leisure time, and education, are considered in this context. The necessarily brief survey suggests that it would be more realistic to predict demand changes in directions favorable for small firms than to extrapolate past trends. The degree of such changes will be strongly affected by public policy measures, in particular the degree of success in assuring an environment of confidence in employment opportunities and rising incomes through economic expansion.

The role of Government expenditures in altering the relative position of small firms is considered next. The major increase in defense expenditures constitutes an important part of the explanation for the trend since the 1930's in output composition unfavorable to small concerns. The role of small business in defense production is less significant than in manufacturing generally, and may well become weaker in

[3] U. S. Small Business Administration, Seventh Semiannual Report 1956, pp. 37–9. (Cited hereafter as SBA, seventh report, or reports as numbered.)

the future if recent trends in the composition of military expenditures continue. Small firms do gain from subcontracting. As far as can be determined from existing data, however, subcontracting does not seem to reverse the conclusion that the small-business share of defense production is lower than its share of civilian output.

Spending on nondefense goods by the Federal Government, and by State and local governments, is highly favorable for small business. The share of small firms in purchases by civilian executive agencies of the Federal Government is roughly two and one-half times their share of military prime contracts. On the State and local levels, two-thirds of all expenditures are for construction, in which small business has a solid position. Insofar as expenditures of Government civilian functions increase, the small-business position is likely to be improved.

Economic change is likely to open new opportunities for small firms in many individual industries and to reduce them in others. The flexibility, personal direction, and lower capital intensity of small firms should in general work in favor of their successful adaptation to shifts in demand. Their ability to adapt is, however, strongly affected by public policy. There is wide scope for improving the health of small firms by measures reducing entry barriers in expanding fields, whether the barriers are created by practices of larger firms in foreclosing strategic markets or by restrictive legislation intended to protect established small firms.

The main factor favorable to small business since 1940 has been the fairly steady expansion of real income. Increasing markets created by rising income provide new openings and enhance the ability of all firms to adapt to change. Postwar prosperity has aided particularly small firms in construction, and enabled them to regain ground lost in the depression. It has encouraged State and local expenditures on public services in which small business participates strongly.

Higher levels of real personal income may also have been an important factor shaping family spending and the structure of consumer demand. In the long run, rising incomes should promote diversity of tastes and thereby favor relatively specialized provision of goods and services. While there have been signs of such a tendency in recent years, there has been no marked trend of this nature. Consumer buying habits are not determined by preferences established independently of social institutions. The institutions of advertising and brand identification systematically bias consumer choices in directions more favorable to the larger firms which do the bulk of product advertising. The quantitative importance of this factor is not established but the direction of bias is clear. It should not be ignored in considering relations between demand trends and small business, or in formulating public policy.

CHANGES IN COMPOSITION OF OUTPUT

The present section constitutes a review of major changes in the relative importance of United States industries in the period 1929–56, with an attempt to relate these changes to the position of small business. The first part is concerned with changes in manufacturing; the second part with the relationship of changes in manufacturing to those in economic sectors more favorable for small business. The assumption throughout is that there are fairly persistent differences in the comparative advantages of small concerns among industries, so that

output trends by industry can be meaningfully associated with gains and losses for small firms.

Manufacturing

In manufacturing as a whole, small business clearly operates under disadvantages as compared to other economic sectors. Manufacturing accounts for about 30 percent of the national income, and contains only 7 percent of the total population of business firms.[4] But within manufacturing, small business has a fairly strong position in such categories as apparel and food products, and a decided disadvantage in such lines as primary metals and transportation equipment.[5]

The nature of differences in the relative share of small concerns in individual industries is a complex question, but the core of the issue is the presence of absence of substantial economies of scale. The apparel industry provides a good example of an industry in which small firms have no significant production disadvantages: the rate of return decreases with increasing asset size through practically the whole range of the data.[6] The 1954 Census of Manufactures indicates an average value added per establishment in this industry of $164,031, which is only 40 percent of the figure for all manufacturing.[7] In contrast to this field, returns to manufacturers in tobacco production increase with scale across the whole range of the available data; in electrical machinery and in automobiles they remain approximately constant after reaching a fairly high minimum.[8] From another point of view, small firms may be linked systematically to industries, such as apparel, "where raw materials are unstandardized or constantly changing; where the processes involved are in continual flux; where the end product is not standardized."[9] Given differences among industries in such respects, it is to be expected that widely varying industry growth rates may well alter significantly the balance between large and small firms.

In order to establish some basis of generalization as to the effects of output trends on small business in manufacturing, it is useful to divide industries into two groups on the basis of the relative position of smaller firms in each. The particular basis of division used here is the percentage of total value added in each industry by establishments with less than 500 employees. The share of smaller establishments so defined for all manufacturing in 1954 was 49.2 percent. Table 1 following lists the industries for which the share of the smaller establishments was above this figure. The growth trend for this group of industries is compared to that for the rest of manufacturing, on the basis of their respective contributions to national income since 1929.[10]

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[4] Survey of Current Business, July 1957, table 13, p. 16, and table 1, p. 3.

[5] For data on the distribution of firms by size among manufacturing industries as of 1939, see A. D. H. Kaplan, Small Business: Its Place and Problems (McGraw-Hill, 1948), ch. 3, especially table 13, p. 37; for recent trends, see study 9 (Markham).

[6] Kaplan, op. cit., chart 76, p. 98.

[7] U. S. Bureau of the Census, 1954 Census of Manufactures, general summary, Bulletin MC-201; computed from table 2, p. 4.

[8] Kaplan, op. cit. See also study 9 (Markham) and study 7 (Duesenberry).

[9] R. Vernon, Production and Distribution in the Large Metropolis, Annals of the American Academy of Political and Social Science, November 1957, p. 23.

[10] "National income originating in each industry is the sum of factor costs incurred by the industry in production. Hence, it is the net value added to production by the industry, measured at factor costs. In the business sector of the economy * * * it is equal to the excess of the market value of the industry's product and the subsidies it receives over the sum of the following costs: purchases of goods and services from other enterprises, indirect business tax and nontax liability, business transfer payments, and capital consumption charges." U. S. Department of Commerce, National Income, 1954 Edition, note 1 to table 12, p. 176. (Cited hereafter as National Income.)

For the industries listed in table 1, establishments with less than 500 employees produced 70 percent of value added in 1954. For all other industries, this size class accounted for only 31 percent of value added. The listed industries, within which the small-business position appears to be particularly favorable, expanded at a rate slightly less than half that of all other manufacturing industries. The contrast in growth rates was not significantly different whether considered for 1929–56 as a whole or for the 1948–56 period. This suggests that the overall trend in relative expansion among industries was not favorable for smaller firms.

The basis of classification used in table 1, and the particular measure of growth, have no claim to validity over other possible measures. An alternative method of comparison attempted before drawing up table 1 was to group industries on the basis of average value added per establishment. On the basis of this measure, the paper and textile industries dropped from the list, and differences in growth rates between the two groups decreased moderately. Further alternatives deserve consideration if the general approach is to be accepted as illuminating. In particular, the use of three-digit census industries would be preferable to the broader categories used here.

Important conceptual questions should be considered in assessing the general conclusion suggested by table 1. Industry classifications depend on value added per establishment, with no reference to the role of independent small firms. Furthermore, the relationship between industry growth and relative firm size is complex, but in general rapid industry expansion should have the effect of raising average size. Rapid industry growth, however, need not increase average firms size at all if there is no disadvantage to entry by small concerns. Moreover, if establishments with less than 500 employees account for a significant share of value added in an industry, and it is feasible for new small concerns to enter, the industry should be considered favorable for small business regardless of the current ratio of independent firms to establishments. To some extent it must be true that larger average-firm size in more rapidly growing industries reflects successful expansion of concerns that would have been smaller if the industry had expanded less rapidly. Only a thorough study over a long period of changing firm size in industries with different growth rates can provide an answer to the question of relationship between average size of concern and growth of the individual industry.

TABLE 1.—*"Small business" industries within manufacturing (industries in which the proportion of value added by establishments with less than 500 employees was above the average for all manufacturing in 1954)*

Industry	Percentage of value added by establishments with less than 500 employees	Percentage increase in national income originating in industry	
		1929 to 1956	1948 to 1956
Lumber [1]	91.1	262	17
Apparel	88.4	246	25
Furniture [1]	79.4	173	55
Leather	78.4	139	15
Food and kindred products	72.6	310	32
Printing	66.0	231	60
Fabricated metals [2]	65.0	(3)	76
Paper and allied products	64.2	611	71
Stone, clay, and glass	63.9	399	87
Textile mill	54.9	148	−14
Miscellaneous [2]	54.4	(3)	48
Total of listed industries	69.6	[4] 262	38
All other industries	31.0	[4] 550	87
All manufacturing	40.2	394	62

[1] Subdivisions of the furniture and lumber industries were changed between these industries in 1947 so data for each considered individually are not comparable for 1929 and 1956. Since both are included among the listed industries, the differences should not affect conclusions indicated by the total for all listed industries.

[2] The subdivisions of "metals, metal products, and miscellaneous" were redefined in 1947, making data for constituent industries noncomparable for 1929 and 1956. Therefore, the 1929 to 1956 comparisons omit these categories both from "listed" and "other" industries. (They are included in "all manufacturing.") These industries are included, on the current basis, for all comparisons of 1948 and 1956.

Sources: Distribution of value added by number of employees from U. S. Bureau of the Census, 1954 census of manufactures, Bulletin MC-203, table 1; national income data from U. S. Department of Commerce, National Income, 1954 edition, table 13, pp. 176-177 and Survey of Current Business, July 1957, table 13, p. 16.

The data in table 1 seem to contradict conclusions arrived at in several studies of concentration, which are widely interpretated as showing that concentration in manufacturing has not increased significantly during the 20th century.[11] In addition to the preceding reservations, it must be emphasized that it is perfectly conceivable for small firms to have improved their position within industries sufficiently to offset adverse changes among industries. But two further aspects of the apparent difference in results deserve attention.

In the first place, studies of long-run changes in concentration cover the period up to 1947 only, and fairly marked increases have occurred then.[12] In the second place, changes in concentration need by no means reflect exactly changes in the relative position of small business, as illustrated by the following hypothetical example. Consider 2 industries, one consisting of 1,000 small concerns and the other of 4 large firms, with output initially equal in the 2 industries. Assume that, over time, output of the first industry remains constant while that of the second doubles, with four large firms entering the industry and accounting for most of the output gain. The market

[11] M. A. Adelman, The Measurement of Industrial Concentration, Review of Economics and Statistics, November 1951, pp. 269–296; G. W. Nutter, The Extent of Enterprise Monopoly in the United States, 1899–1939 (University of Chicago Press, 1951).

[12] U. S. Congress, Senate, Committee on the Judiciary, Concentration in American Industry, Report of the Subcommittee on Antitrust and Monopoly, 85th Cong., 1st sess., July 12, 1957.

share of the 4 largest firms would then be unchanged in the first and lower in the second industry, and also lower in the 2 industries combined. Concentration, as measured on this basis, would move in a direction opposite to the basic change in the relative position of small firms in the 2 industries combined. The permutations of the possible measures of concentration and the difficulties attendant on each approach can be multiplied indefinitely.[13] The essential point is that concentration ratios need not accurately reflect changes in the relative position of small business: Existing concentration data provide no disproof of the general conclusion above that output trends in manufacturing have been unfavorable to the relative position of smaller firms.

Changes in the Relative Importance of Major Economic Sectors

The economic sectors which may be most closely identified with small business are construction, trade, and services.[14] "Services" are here intended to refer to the collection of activities identified under this title by the Commerce Department in its allocations of national income by source: They include, in addition to personal services, also hotels and other lodging places, amusements, legal and medical services, and a variety of business services other than finance.[15] They do not here refer to finance, transport, communications, and public utilities, or to Government.

For the period 1929–56, total national income increased 291 percent. In this period national income originating in manufacturing increased 394 percent. None of the sectors where small firms are prevalent expanded so rapidly as manufacturing. National income originating in contract construction rose 365 percent, that in trade 333 percent and that in services 244 percent. The combined growth of these 3 sectors was 304 percent, just slightly over three-fourths of the growth rate of manufacturing.[16]

Between 1929 and 1939 the contribution to national income of construction, trade, and services combined actually decreased, while that of manufacturing rose slightly. The postwar prosperity has been more favorable for sectors in which small firms are concentrated. From 1947 to 1956, the dollar value of national income originating in manufacturing increased 84 percent, while that in construction rose 111 percent and in services 88 percent. Retail and wholesale trade did not keep pace in part, presumably, because some of the increase in Government purchases bypassed trade channels; their increase was only 55 percent, and this held the combined increase for construction, trade, and services down to 72 percent. Again, though by a much narrower margin, manufacturing expanded faster than the (combined) sectors more closely associated with small firms.

The preceding discussion has used very rough approximations for dealing with complex questions. Much more detailed analysis would be necessary to permit any high degree of confidence in the results. In particular, the possible effects of differential price movements for products of individual industries should be investigated. The broad conclusion is fairly clear, however: For the last three decades, trends in the composition of output were not favorable for small business.

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[13] For a careful discussion of the implications of various measures, see Gideon Rosenbluth, Measures of Concentration, in National Bureau of Economic Research, Business Concentration and Price Policy (Princeton University Press, 1955). (Cited hereafter by title.)
[14] Kaplan, op. cit., chs. 2–3.
[15] National Income, table 13, pp. 176–177, and exhibit 1, p. 66.
[16] Ibid., and Survey of Current Business, July 1957, table 13, p. 16.

CHANGES IN CONSUMER DEMAND

Observable changes in consumer demand, as measured by dollar expenditures, have been roughly consistent with the directions of output change as discussed in the preceding sections: i. e., relatively more favorable for expenditures categories associated primarily with larger firms. The present section describes briefly data on expenditure patterns since 1909 and then considers some structural factors which may be acting to alter the trend of consumer demand in directions more favorable for small firms.

Historical consumption patterns

The 20th Century Fund review of consumption since 1909 permits some deduction in general terms of the effects of long-run demand changes on small business.[17] In table 2, which is based on expenditure categories used in this study, expenditure categories that are considered to be associated with smaller firms are compared with those which larger firms dominate. The grouping of expenditure categories is arbitrary, and the categories themselves are very broad. The table omits completely several types of expenditure which are either outside the intended scope of the present inquiry or too heterogeneous to permit any defensible association with size of firms. The omissions include financial and legal expenses, medical care and insurance, domestic service, education, and private welfare expenditures. The omitted categories accounted for 16.2 percent of consumer expenditures in 1909 and 15.1 percent in 1952.

TABLE 2.—*Distribution of consumer expenditures, selected years, 1909–52*

[Percent]

Category	1909	1929	1947	1952
Categories considered to be more nearly associated with small firms:				
Food and nonalcoholic beverage	25.57	24.36	28.83	29.21
Clothing and personal services	14.85	14.75	15.10	12.51
Rent and imputed rent	19.31	14.14	8.82	11.01
Recreation	2.98	4.75	5.22	4.81
Furniture	4.27	4.58	5.11	4.93
Household cleaning and repair	.90	1.00	1.04	.89
Total	67.88	63.58	64.12	62.86
Categories considered to be less closely related to small firms:				
Transportation	5.17	7.19	9.37	10.99
Liquor	6.25	2.48	5.36	4.07
Tobacco	2.18	2.10	2.34	2.36
Utilities	1.25	1.73	1.61	2.00
Communications	.60	1.06	1.33	1.59
Mechanical appliances	.50	.95	1.68	1.11
Total	15.95	15.51	21.69	22.12
Omitted categories (see text)	16.17	20.91	14.19	15.02
All categories	100.00	100.00	100.00	100.00

Source: Twentieth Century Fund, America's Needs and Resources, A New Survey (Fund, 1955), appendix 4–5, pp. 984–986.

The tenuous nature of the classification system used in table 2 precludes any strong inference. The result does suggest that consumer-demand trends worked slightly more favorably for larger firms; the

[17] Twentieth Century Fund, America's Needs and Resources, a New Survey (Fund, 1955). (Cited hereafter as America's Needs and Resources.)

second group of expenditure categories increased from 16 to 22 percent of total consumption between 1909 and 1952, while the first group fell from 68 to 63 percent. The most important changes in group favoring small concerns were the increases in relative expenditures for food and recreation, and the decreases for rents, clothing, and personal services. In the other group, the rise in transportation expenditure dominates the result.

The major decline in relative expenditure on rent is most difficult to relate directly to effects on firms. Residential construction does heavily involve small firms, but rents cannot be linked very directly to such expenditures. The latter show such extreme fluctuations that the concept of a trend becomes almost empty. Still, the expenditure pattern probably does indicate a genuine relative decline in demand for housing services with rising incomes, and should be interpreted as a structural change in a direction unfavorable for small firms.[18]

More detailed analyses of consumer expenditure changes are available for the period since 1929.[19] They provide raw material for a much more extensive investigation of the recent relationships of demand trends and small business than can be attempted here. Rather than review these studies, the following discussion centers on trends in one particular type of consumption that seems to be closely related to small business; namely, consumer services.

Consumer demand for services

Consumer demand for services increased more rapidly than demand for goods in the period from the Civil War to the depression, but the evidence since 1929 is very mixed.

Kuznets' study of output from the decade 1869–78 to that of 1929–38 reveals an increase in the service share of total consumption from 26.21 to 38.02 percent. Expenditures on services other than rents rose more rapidly than consumer services as a whole.[20] But Commerce Department data for the period since 1929 suggest that this upward trend may have weakened. Expressed in constant 1947 dollars, the ratio of service expenditures to total consumption declined from 0.338 in 1929 to 0.317 in 1947 (when some services had not yet recovered from wartime manpower and equipment shortages) and rose again to 0.333 in 1956.[21] The recent growth of services appears very striking, but only if attention is confined to the last few years.[22]

The stability of aggregate services relative to total consumption for 1929–56 conceals a wide variety of different growth rates for individual service fields. The individual fields vary considerably in their relevance for small business. Selected types of consumer services, with their expenditure figures for 1929 and 1956, are given in table 3. Many Commerce Department service categories are omitted from this list, either because they are primarily financial and excluded by intent from the present study, or because they are not supplied pri-

[18] Ibid., ch. 2.

[19] See especially the Commerce Department studies by Louis J. Paradiso and others summarized in America's Needs and Resources, appendix 4–6; Louis J. Paradiso and Clement Winston, Consumer Expenditure-Income Patterns, Survey of Current Business, September 1955; Elizabeth Gilboy, Elasticity, Consumption, and Economic Growth, American Economic Review, May 1956, pp. 119–133.

[20] Simon Kuznets, National Product Since 1869 (National Bureau of Economic Research, 1946), table III–9, pp. 142–143.

[21] Survey of Current Business, July 1957, table 2, p. 9, and table 40, pp. 24–25. See discussion of this stability of consumption patterns in National Income, p. 4.

[22] Cf. Paradiso and Winston, op. cit., for discussion of the period 1947–54, in which many service categories grew very rapidly.

marily by business firms. Omitted fields include financial services, professional and noncommercial services, personal servants, and housing other than transient rentals.[28] The remaining list is subdivided into two groups, of which the first (group A) includes services more closely related to small business. Although many of these service fields obtain a great deal of their receipts from business sources, only consumer expenditures are included here.

TABLE 3.—*Selected categories of consumer expenditures on services, 1929 and 1956*

Expenditure category and number [1]	Expenditures (in millions of dollars)		Percentage increase
	1929	1956	
GROUP A			
83, 82: Service of automobiles, radio, and television	802	4,046	404
9, 14, 15, 17: Cleaning, laundry, dress, and shoe repair	1,264	3,480	175
20: Barbershops and beauty parlors	525	1,851	253
85, 87: Moving pictures; spectator sports	786	1,539	96
30: Funeral and burial	607	1,299	114
26: Hotels, motels, and tourist camps	249	1,087	337
29: Commercial participant amusements	207	683	230
69: Taxicabs	220	630	186
Total, group A	4,660	14,615	214
GROUP B			
41: "Other household operation"	316	1,610	409
74: Airline	3	485	----------
73: Intercity bus	52	268	415
Total, group B	371	2,363	537
Total, all listed fields	5,031	16,978	237

[1] Numbers indicate lines used in table 30 of the sources cited. For description of groups, see text.

Sources: National Income, 1954 edition, table 30, p. 207, and Survey of Current Business, July 1957, table 30, p. 21.

For all fields listed in table 3, the combined growth rate has been almost identical with that of total consumption. But expenditures by consumers in the fields included in group A of table 3, which are more nearly identifiable with small firms, increased less rapidly than total consumption between 1929 and 1956; 214 percent as against 238 percent for the total. The economic activities included in group B do involve small firms, but their weight in these industries is very low. As an estimate of the growth rate of those consumer service expenditures that affect small concerns, the computation for group A is more nearly relevant.

Within group A, two fields exhibit especially rapid past growth, and should continue to provide rapidly expanding opportunities for small firms. Expenditures on repair and service of automobiles, radio, and television increased 404 percent between 1929 and 1956, much more rapidly than total consumption. Such services, as a function of the stock of consumer durables rather than of current additions,

[28] For a more inclusive study of service categories and their rates of change since 1954, see the detailed (and lively) paper by Robert Ferber, Expenditures for Services in the United States: Their Growth and Some Factors Influencing Them (paper presented at a conference on consumption and economic development sponsored by the Universities-National Bureau Committee for Economic Research, 1955). The two types of service expenditure showing highest income elasticity in Ferber's analysis of cross-section data for 1935–36 and for 1950, education and medical care, are not areas in which small firms operate importantly (p. 29).

are very likely to grow faster than expenditures on new durables themselves. Outlays of users of hotels and motels also increased more rapidly than total consumption, and should continue to benefit from secularly rising travel expenditures. Small enterprises may be gaining at a greater rate than the industry as a whole in this case, because they are disproportionately well represented in the more dynamic motel category. These two sectors alone may well pull up the average growth rate of the consumer-service industries, but the heavy weight of the slower-moving personal-service categories makes it unlikely that all combined will outpace the growth of total consumption.

Benefits to small concerns from increasing service expenditures may lie more strongly with business services than with consumer spending. This question is outside the intended limits of the present paper, but it should be noted that the factors making for relatively rapid growth of business services are most impressive.[24]

Underlying factors affecting consumer demand trends

The following discussion considers a number of factors shaping consumer demand trends, and their possible future effects on the position of small business. It must be understood that these points are merely broad suggestions, related to a few among the many factors determining consumer behavior. This general subject requires extended, imaginative investigation.[25] The material used here does nothing more than suggest that an extrapolation of past trends is less likely to be correct than a forecast that these trends will alter in certain directions.

One of the most important changes in behavior in the last two decades was the interruption of the previous long decline in birthrates.[26] In the postwar period, the change seems to be associated with an increase in the relative size of families in higher income groups.[27] It must certainly have been true that declining birthrates during the period up to World War II contributed to the relative decrease in expenditures on food, housing, and clothing shown in table 2 above for the period 1909–29. Such expenditures continued to decrease, along with the birthrate, during the depression; all except clothing turned up strongly with prosperity.

To the extent that more recent marriage and birth-rate patterns are persistent—that they reflect more than a temporary reversal of the postponements associated with the depression of the 1930's—demand trends should operate in directions favorable to expenditure on food, housing, and nondurables. "From now until perhaps the late 1960's, perishables, soft goods, and services may be expected to enlarge their share of the market at the expense of the durables."[28] These are directions of change which should be favorable to smaller firms.

Changes in the age distribution of the population are working both for and against the prospects of the food-clothing-housing producers. The median age of the population moved continuously higher for a century: from 19 years in 1850 to 30 in 1950. The proportion under

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[24] Vernon, op. cit., especially pp. 16–17 and 26.
[25] Cf. discussion of some related research in progress, American Economic Review, May 1956, pp. 119–154.
[26] America's Needs and Resources, table 17, p. 56 and discussion in ch. 3.
[27] Editors of Fortune, The Changing American Market (Hanover House, 1955), ch. 2, esp. pp. 43–44. (Cited hereafter by title.)
[28] Ibid., p. 37.

15 years of age declined from 15.1 to 10.7 percent, while that over 65 rose from 2.6 to 8.1 percent.[29] In the last 10 years of this period, the previously steady decrease in the proportion under 15 was emphatically reversed, while the proportion over 65 continued to increase. The unfavorable effect of a rising percentage of people over 65 years of age on relative demand for food, clothing, and housing will continue for some time, but will gradually lessen unless birth rates completely reverse direction.

The increasing average size of families is bound up with changes in living patterns, notably the movement outward from cities into suburban areas. Such moves may in some cases be caused by an antecedent desire for larger families, but may also have the effect of encouraging further change in the same direction; social pressures in the suburbs do not favor small families.[30] The combination of suburban living with larger families contributes to rising relative demand for housing services. The postwar surge of residential construction may be more than purely cyclical and more than offset wartime shortfalls. There are good grounds for accepting the Fortune conclusion that housing has "strong potentialities for growing faster than the economy as a whole." [31]

The increase in leisure time which has been a persistent aspect of rising real incomes may act to alter demand patterns in directions affecting the position of smaller firms, but it is doubtful that this factor will change past trends significantly. In the first place, there is no reason to expect that leisure time will rise any faster in the future than it has in the last half century; it may well be that the increase will be less rapid than in the past.[32] The "leisure market," or spending for recreational purposes, did grow from 3.0 percent of consumption expenditures in 1909 to 5.4 percent in 1946, but it has decreased slightly since.[33] The Fortune study uses material quite different from that employed in the Twentieth Century Fund study of recreation spending, but arrives at the same surprising conclusion that such expenditures have not been increasing relative to total consumption in recent years. It suggests that (1) the rise in home-ownership has absorbed an increasing share of income and of time in household improvements; (2) the increase in "leisure" in the form of shorter working hours has been largely absorbed by increases in time required for going to and returning from work; (3) the lessening income inequality has favored relatively expenditures on the new "necessities," notably household durable goods; and (4) vacation expenditure habits can change only very slowly. The Fortune authors expect these factors to continue to operate in the future, though with varying importance depending on the pace of income change—

> the leisure market probably will not keep exactly in step with the economy in the next few years * * * at most, leisure spending will rise moderately * * * [34]

Consumer expenditures on services in the aggregate have closely paralleled those on recreation, rising steadily up to 1929 but remaining fairly stable relative to total consumption for the whole period since.

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[29] America's Needs and Resources, pp. 62–63.
[30] The Changing American Market, p. 50.
[31] Ibid., p. 91; cf. discussion, ch. 5.
[32] Cf. Gerhard Colm, The American Economy in 1960 (National Planning Association, 1952), pp. 18–19.
[33] America's Needs and Resources, pp. 992–995.
[34] The Changing American Market, pp. 211–221.

As suggested earlier, it is very uncertain that continued income increases will generate trends toward services as pronounced as those found by Kuznets for the period from the Civil War to the 1930's. The earlier long-run trend may be ascribed in large measure to the rural-urban population shift between 1869 and 1929, with the concomitant development of specialized urban service functions formerly not needed or performed outside the market. The population remaining in the agricultural sector today does not permit indefinite continuance of farm-to-city shifts on the scale we have known for so long in the past. The newer trend outward from urban to suburban areas is altering the character of required services, with results that are hardly predictable in the aggregate. We are certain to continue experiencing structural change, but there is some possibility that the net effect on demand for consumer services will be less marked than in prewar years.[35]

In the Fortune survey of consumption trends, great stress is placed on the "luxury market." The authors defined such expenditures as those which rise faster than income, for all families whose incomes are above $4,000.[36] The general proposition that discretionary expenditure on "nonessentials" will rise with increasing incomes is unassailable. This might suggest a structural factor favorable for small firms: Higher incomes are associated with diversity in demand patterns that should be less favorable to large-scale production and marketing techniques. Yet, there has been no clearly marked trend in this direction. The specialized market of the small high-fidelity component producer becomes a mass market for the equipment of the larger nationally known firms as soon as enough people want the new product to make mass distribution feasible. In some cases this tendency means that real income is raised more rapidly by provision of essentially the same commodity at a lower cost than would be possible for many independent producers. But there is also a persistent bias acting to change tastes in the direction of goods which can be distributed on a national basis under some well-known label. It would be a mistake to regard consumers as infinitely malleable by advertising pressures; it is also surely incorrect to regard their preferences as given independently of such forces.[37] The importance of advertising for consumer spending patterns has not been measured or analyzed sufficiently to yield firm conclusions. The direction of its effect is certainly to move demand toward products offered by larger, more widely known, firms.[38]

One interesting study of consumer behavior suggests a structural factor that may operate in the long run to reduce the advantages to large firms of their greater access to techniques of shaping demand. A positive relationship was established between the level of education and the degree of consumer deliberation and active assessment of products.[39] Elementary education that teaches everyone to read but few to think probably establishes ideal conditions for manipulation

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[35] Cf. George Stigler, Trends in Employment in the Service Industries (National Bureau of Economic Research, 1956), pp. 162–163; E. F. Denison, Service Industries—Trends and Prospects, Survey of Current Business, January 1945, pp. 11–20; Ferber, op. cit.

[36] The Changing American Market, ch. 11.

[37] Cf. Nelson Foote, The Autonomy of the Consumer, in L. Clark, editor, Consumer Behavior, vol. I (New York University Press, 1955), especially p. 15.

[38] Cf. J. S. Bain, Barriers to New Competition (Harvard University Press, 1956), ch. 4.

[39] Eva Mueller, The Sample Survey, in Clark, op. cit., pp. 54–58.

of demand; higher education seems to promote more independent consumer choice. If the average level and quality of education can be raised over time, consumer choices among products should become less subject to pressures tending to move them in directions favorable to larger firms.

GOVERNMENT PURCHASES

Defense expenditures

Expenditures for national security account for the largest single postwar change in the composition of demand. From negligible amounts in the 1920's and 1930's they have risen to over 10 percent of the gross national product. Their direct effect on small business is relatively unfavorable and probably will become more so over time. The larger and largest firms account for a disproportionate share of defense production, and the underlying trends in composition of defense production appear likely to increase their share.

It would be incorrect to state that defense expenditures have a negative effect on small business: Insofar as they mean higher aggregate demand for goods in the economy, they help to avoid the general business declines that invariably strike small business with great force. But the question of aggregate demand should be separated from the analysis of the composition of expenditures; in this latter sense, heavy defense expenditures are unfavorable for small firms.

The adverse element in defense expenditure composition is the trend toward increasingly complex equipment produced mostly by capital intensive enterprises.[40] Small business operates at a comparative disadvantage in such fields as aircraft and guided missiles, and must expect to lose ground as expenditures for these items rise relative to expenditures on uniforms, food supplies, and light equipment. Among services, the higher proportion of soft goods used by the Army has been reflected in a much higher share of Army than of Air Force or Navy contracts going to small firms. The share of small business sales in total procurement has been adversely affected by a decline in the Army share of the total defense budget.[41]

The following data on defense procurement are based on the definitions of small firms and the techniques of measurement used by the Small Business Administration.[42] The small business share of net military prime contracts was 20.9 percent in fiscal year 1951; it rose to a peak in 25.3 percent in fiscal year 1954, then fell to 21.5 percent in fiscal year 1955, 19.6 in fiscal year 1956, and 18.9 percent for the first 11 months of fiscal year 1957.[43] The percentages for 1957 may not be completely comparable with earlier years, because educational and nonprofit institutions were excluded from the data for the first time in that year.[44] These figures cover too short a period, and show too fluctuating a pattern, to constitute clear evidence of any trend. But the figures for the period since fiscal year 1954 support the general conclusion of the Small Business Admin-

[40] Cf. U. S. Congress. Senate. Select Committee on Small Business, Small Business Participation in Goevrnment Procurement—1957, hearings before a subcommittee, 85th Cong., 1st sess., 1957, pp. 10–12; SBA, 8th Report, p. 27 and ch. 4.
[41] SBA, 7th Report, pp. 22–27.
[42] See p. 2 above; SBA, 7th Report, pp. 37–39; U. S. Department of Defense, Small Business Participation in Government Procurement (1956), p. 14.
[43] SBA, 6th Report, p. 21, and 8th Report, p. 31.
[44] U. S. Department of Defense. Office of the Assistant Secretary (Supply and Logistics), Military Prime Contract Awards, July–September 1957.

istration that changes in the composition of defense procurement have been reducing the small business share.[45]

The relative role of small firms in defense subcontracting is more favorable than in production under prime contracts. A Defense Department survey for July–December 1956, covering 197 large companies with about four-fifths of all the contract receipts of large firms in the period, permits a very rough approximation of this factor. Total military contract receipts of these firms were $7.8 billion. Payments by them to first-tier subcontractors were $2.7 billion, of which $1.7 billion went to small firms. The receipts of smaller firms in this sample were equal to 21 percent of the total receipts of the larger concerns.[46]

The result is by no means clearcut. The study does not include all large firms, and may be biased in coverage toward the largest companies having defense contracts. This could overstate the importance of subcontracting. On the other hand, it omits subcontracting below the first tier level, thus understating the receipts of small firms from first-tier large subcontractors. The most that can be said with any confidence is that the share of small firms in total defense production is higher than the 18.9 percent share of net prime contracts.

The trend of the small business share in subcontracting may be more favorable than that for prime contracts. Smaller firms may retain or even improve advantages in production of specialized parts as defense equipment becomes ever more complex. But some economic factors may work against them. Voluntary subcontracting can only be significant where the temporary or specialized nature of the production involved, or time lags in constructing new facilities, make it difficult for the prime contract firm to carry out the whole operation profitably itself. If defense production were to expand on a fairly stable basis, the incentive and ability of prime contract firms to carry out projects with less subcontracting probably would increase. To quote from a careful discussion of the economics of vertical integration in general, "expansion of demand which induces economies of scale in the associated markets also induces the firms in the growing industry to occupy the associated markets. Once established, the pattern perpetuates itself, unless the (private) diseconomies of integration are considerable." [47]

Organized efforts to increase the participation of small business in defense procurement are being made within Congress and through the Small Business Administration. The steps taken to increase small business awareness of contract possibilities, and knowledge by purchasing offices of small business production facilities, have had some helpful results. They serve to offet an important noneconomic disadvantage of the smaller firms: the lack of official contacts and knowledge of opportunities. Efforts to promote such knowledge improve the market by increasing Government choices in placing contracts. This should improve efficiency and lower the cost of defense, as well as raise the small business share over what it would otherwise have been. Unfortunatley, this is also an area of some potential danger.

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[45] SBA, 8th Report, p. 27.
[46] U. S. Department of Defense, Small Business Participation in Government Procurement (1956), pp. 4–5, appendix IV, pp. 366, 367. (Cited hereafter by title.)
[47] M. A. Adelman, Concept and Statistical Measurement of Vertical Integration, Business Concentration and Price Policy, pp. 319, 320.

Improving the opportunities of small firms by increasing market information and contacts available to them is highly desirable; restricting access to contracts by large firms is most undesirable. Efforts to equalize opportunities for smaller firms seem to be verging on the latter, restrictive, type of action. The issue may be focused on the increasingly important "joint set-aside program."

The joint set-aside program is carried out by assigning representatives of the Small Business Administration to major Government procurement agencies, to "review proposed purchases, determine the type of facilities needed to produce the items, evaluate the prospects for small business competition, and advise procurement officials of those which they believe should be earmarked for competition exclusively among small firms." [48] The exclusion of any competent bidders for any defense contract would seem to be contrary to the public interest in a highly vital area.[49]

The policy of increasing small business opportunities and market information represents the positive aspect, and the set-aside program the negative aspect, of the role of administrative decision in shaping small business participation in defense procurement. It may be expected that in any event policy measures intended to help small business will not be implemented in ways seriously interfering with defense requirements. While the small business share in future defense production certainly cannot be predicted, the preceding considerations with respect to composition of expenditures and subcontracting make it appear unlikely that the position of small firms will improve significantly.

Government purchases of civilian goods

Purchasing activities of the civilian agencies of the Federal Government, and of State and local governments, favor small concerns quite strongly. While a fairly high proportion of such expenditures are for employee compensation, purchases from business are also substantial and are to a considerable extent directed to smaller (frequently local) concerns.

Procurement by civilian executive agencies of the Federal Government, other than the Atomic Energy Commission, totaled $1.0 billion in fiscal year 1955 and $1.2 billion in fiscal year 1956. Small firms secured 53.3 percent of these orders in 1955 and 49.0 percent in 1956. The definition of "small firms" here is the same as that used for defense procurement above, in which their share of prime contracts was 21.5 and 19.6 percent, respectively, in the same 2 years.[50] However, subcontracting is more important in defense production than in the procurement of nondefense goods and services, and narrows the difference between the true small business shares in civilian and defense procurement. Yet it is fairly certain that the share is much higher in civilian procurement of the Federal Government.

Purchases by State and local governments from business were $15.8 billion in 1956; a very high proportion of such expenditure was received by small firms, particularly of the $10 billion spent on con-

[48] SBA, 7th Report, p. 66; see also 8th Report, pp. 62–67.
[49] See discussion of efforts to increase the share of small firms by expanding the set-aside program in Small Business Participation in Government Procurement, pp. 37–40.
[50] SBA, 7th Report, p. 32. For the SBA definition of small firms, see study 6 (Stockwell), p. 150.

struction.[51] The State and local expenditure on construction may be increasingly important to small business in the future. The population trends discussed in the preceding section will lead to increasing requirements for schools, recreational facilities, roads, and the whole range of State and municipal services.[52] Given the inadequate state of our educational plant, and widespread needs for road improvement and urban development, such expenditures are likely to increase substantially. The effect on small business may be incidental to wider social purposes, but in this area several worthwhile objectives may be pursued simultaneously.

State and local purchases from business firms, other than construction, may also be made in large measure from small local firms. This is a sector in which the comparative advantage of local dairies, printers, and other suppliers is quite strong. They are likely to be aware of opportunities, to be able to handle small contracts at competitive costs, and even to have political and other noneconomic advantages over outside firms. Such expenditures have also increased in the postwar period, from $3.0 billion in 1947 to $5.7 billion in 1956.[53]

In general, it may be concluded that State and local expenditures, and purchases of goods by civilian Federal agencies, probably have a disproportionately beneficial effect on small business. An increase of civilian spending on all levels of Government relative to total expenditures would be favorable for small firms.

SOME GENERAL CONSIDERATIONS

The pattern of changes in consumer demand and its effect on small concerns will be very strongly affected both by efforts of the concerns and by choices of public policy: the growth of demand is only one element in the equation. The present section reviews briefly some of these important variables.

The pattern of demand change will of course be directly affected by Government expenditure policy. Increasing defense procurement will move demand in relatively unfavorable, and increasing civilian governmental expenditures in favorable, directions. The pattern of consumer demand will also depend in part on progress in improving education, and on changes in other factors determining the effectiveness of advertising. Consumer demand trends can hardly be regarded as "given" when firms spend several billion dollars a year in attempts to shape and direct them.

For any particular set of demand changes, the effects on small firms depend very much on their own ability to take advantage of new opportunities, and on public policy with respect to mergers, entry barriers, and techniques of competition. The process of change itself must continuously generate new opportunities, and the evidence is fairly good that small firms take effective advantage of them. Markham (in study 9) makes the point that concentration ratios seem to be consistently lower in newer industries.

The degree to which entry and adaptive shifts are possible, and thus conditions for growth of small business are favorable, is partly

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[51] Survey of Current Business, July 1957, table 7, p. 14.
[52] America's Needs and Resources, ch. 18.
[53] National Income, table 9, p. 173; Survey of Current Business, July 1957, table 9, p. 14.

a function of public policy: Unfortunately, local ordinances, and even State laws, often serve to impede entry by new firms in order to protect the existing sellers. "The lines of business where there has been organized effort to restrict entry cover the whole gamut of small enterprise * * *. In the long run the small dealer is most likely to suffer, because he is the most likely to be under the necessity of picking up a new line or discovering a variation of his business that will give him a better chance to develop a successful operation."[54] At the Federal level, antitrust measures opening new entry and growth possibilities for smaller firms have become increasingly effective in the postwar period.[55]

The focus in analysis of the position of small firms should be on their ability to adapt to change rather than on numbers surviving in specific fields. In any assessment of the role of small business it is crucial to distinguish between the number of firms alive and their health. Any objective of maximizing numbers regardless of effects on efficiency would weaken the whole economy. It would be conceivable to adopt tax and regulatory techniques so inhibiting larger firms that most economic activity would be left to small business. The French economy presents a case leaning in this direction. In manufacturing, the number of firms with more than 1,000 workers increased from 205 in 1906 to 421 in 1931; by 1952, after two decades of fiscal legislation and administrative practice adverse to larger firms, the number had decreased to 332. In commerce, stores with more than 500 workers increased from 26 to 109 between 1906 and 1931, but were down to 60 by 1952. More generally, competitive behavior and pressures for efficiency have been inhibited by the widely accepted idea that "every enterprise has a natural right to survive."[56] The overall result in economic performance has not been helpful for France, and would not be here. Multiplying the number of firms at the expense of efficiency is a dreadfully potent way to reduce all incomes.

The distinction between numbers and health is also important in the evaluation of the effects of depression on small business. Thus, the number of firms in the service industries increased between 1929 and 1939, and then declined in the next 5 years; the national income produced in service industries followed exactly the contrary path, falling in the first period and rising in the second. The health of small firms in service fields must have been much better in the period when they were decreasing in numbers than when they were increasing. The effect of improving opportunities in the economy as a whole in the 1940's was to permit people who were earning very little in services (which field, in some cases they entered because opportunities in commodity-producing industries were limited) to move to more remunerative fields.[57] The number of firms need not decline in depressions, but new entry is often of the "desperation" type that leads people to move into already overcrowded sectors. The fields that expand rapidly in the long run because they are highly responsive to income changes

[54] Kaplan, op. cit., p. 209; see discussion, pp. 198–209.
[55] Cf. Clair Wilcox, Public Policies Toward Business (Irwin, 1955), esp. ch. 6, 7, and 14.
[56] J. M. Jeanneney, Forces et Faiblesses de L'economie Francaise (Paris, Colin, 1956), pp. 259–60.
[57] Cf. Kaplan, op. cit., pp. 34, 43, 45 as to facts. (His emphasis in interpretation is not identical to that here.)

are frequently those for which entry is particularly discouraging when incomes fall during depressions. Where a prosperous economy would steadily shift its people and capital into sectors of greatest long-run opportunity, a depressed economy temporarily interrupts or even reverses the process. Businessmen in overcrowded sectors are affected very unfavorably by competitive forces, and react quite naturally by requesting Government action to shield them from competition. The effective solution for healthy small business, that of transfer of resources to more dynamic sectors, depends heavily on the success of private and Government policies in insuring an expanding economy.

VOLUME 3

12. GOVERNMENT LOAN PROGRAMS FOR SMALL BUSINESS [1] [2]

INTRODUCTION

The Small Business Administration is the only Federal Government agency at the present time with a loan program designed specifically to promote the welfare of small business.

Other Government agencies, however, are engaged in helping small businesses to obtain credit. The Veterans' Administration, in a program set up to aid veterans rather than small business, insures or guarantees business loans to veterans. Such loans, however, have always been a minor part of its total loan program and have become less important in recent years. In the area of defense-related production, the V-loan program authorized by the Defense Production Act of 1950 provides for guaranties by certain Government agencies of loans made by private lenders and these loans benefit certain small businesses. The loans are authorized to expedite defense production, however, and not to promote the welfare of small business. Congress has expressed concern for the financing needs of small concerns in this area by requesting periodic reports on the volume of V-loans to small business. Loans by Federal Reserve banks under section 13b of the Federal Reserve Act enacted in 1934 to furnish working capital loans under certain conditions are of diminishing importance, but still available.[3]

The first part of this report includes a brief description of the major types of Government loans available to small business before 1953 and a more detailed description of the Small Business Administration program inaugurated in late 1953. The second part analyzes characteristics common to most Government loan credit programs

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[1] This report does not cover State-owned or supported industrial development authorities since the Pennsylvania Industrial Development Authority, established in 1956, is the only 1 of 5 with a lending record (26 loans with a volume of $3.7 million). See U. S. Department of Commerce, Office of Area Development, Report on Community Industrial Development Corporations and Foundations and State Credit Corporations and Authorities, November 1957. For analysis of privately financed State development credit corporations, see study 16 (Anderson), p. 336.

[2] By Carl Arlt, Board of Governors of the Federal Reserve System.

Dr. Carl T. Arlt is an economist, Banking Section, Division of Research and Statistics, Federal Reserve System. Educational background includes undergraduate training at Colgate University (A. B. 1933); and graduate training at Chicago, Harvard, and Cornell Universities (Ph. D., Cornell 1942). Professional experience includes regular teaching positions held at Colgate and Cornell Universities and Oberlin College (currently on leave from Oberlin); visiting professorships at Cornell, Minnesota, and Western Reserve Universities; and Government service with the Bureau of the Budget (1951) and now with the Board of Governors of the Federal Reserve System. Research areas in finance (coauthor of Money, Banking, and the Financial System—Ronald Press, 1955); Government credit programs (Budget Bureau 1951 and currently with the Federal Reserve), and marketing (trade barriers in the marketing of goods and services—doctoral dissertation).

[3] A complete picture of Federal loans for small business would also include the fisheries loan program in the Department of the Interior. The lending programs of the Bureau of Indian Affairs and the Virgin Islands Corporation are beyond the scope of this report. One is too specialized and the other operates beyond the continental limits of the United States.

benefiting small business as a basis for appraising the current role of such programs, presented in the third part.

LOAN PROGRAMS 1934–53

The lending programs of Federal credit agencies before 1953 served several purposes, but few were designed especially to aid small business. Many types and sizes of businesses needed financial aid to combat the depression emergency, and some Federal aid programs were set up to meet this need. Later, problems associated with war production created needs for working capital as businesses expanded to meet wartime demands. Still later, as wartime needs declined, many firms sought funds for reconversion or for peacetime production.

Private financial institutions met by far the largest part of these demands. In some instances, however, these institutions could not provide the volume of funds needed, and in others the applicants did not meet their standards as credit risks. To aid business in obtaining financial assistance during these emergencies, the Government relied both on direct lending and on guaranteed loans.

Most of the Federal credit to business before World War II represented direct loans. During the war and postwar periods, however, Government aid was largely in the form of guaranties of loans made by private institutions. These developments are shown in table 1, which gives pertinent data for business loans and loan guaranties of Federal agencies for selected periods and by types of loan guaranty. The data in this table, it should be noted, refer to loans to all businesses, rather than to small businesses.

TABLE 1.—*Business loans and loan guaranties of Federal agencies, 1934–57, by periods and by agency*

[Amounts in millions of dollars]

Agency, program, or type of lending	Program established (year)	Authorizations of direct loans, participations or commitments, and insured or guaranteed loans					
		1934–41		1942–53		1954–57	
		Number	Amount	Number	Amount	Number	Amount
By agency or program							
Reconstruction Finance Corporation	1934	10,527	765	[1] 51,288	[1] 4,848		
Federal Reserve banks	1934	3,202	280	563	535	21	36
Smaller War Plants Corporation	1942			[1] 4,775	[1] 480		
Regulation V loans	1942 [2]			9,965	12,702	206	530
Veterans' Administration	1944			210,986	566	20,221	72
Small Business Administration	1953					8,597	398
Fisheries loan program (Department of the Interior)						174	5
By type of lending							
Direct loans		[3] 9,520	[3] 638	30,253	3,254	2,839	120
Immediate participations [4]		692	36	3,606	191	3,535	178
Deferred participations [4]		1,614	145	22,204	[5] 1,883	2,397	104
Loan guaranties [6]				220,951	13,268	20,427	602
Unclassified [7]		1,903	226	563	535	21	36

[1] RFC loan program terminated Sept. 28, 1953; SWPC program terminated in January 1946.

[2] 1st program inaugurated in 1942; 2d in 1950.

[3] Figures for Federal Reserve banks are for 1934–40. Classified data not available for 1941.

[4] A precise classification of RFC participation loans is not available. Figures for the 2 types of participations for this agency are estimates based on information indicating that deferred participation loans accounted for 70 percent of the number and 80 percent of the amount of all participation loans in 1934–41, and for 85 percent of the number and 90 percent of the amount in 1942–53. See R. J. Saulnier, Harold G. Halcrow, and Neil H. Jacoby, Federal Lending and Loan Insurance (Princeton University Press, 1958), pp. 482–486. (Cited hereafter as National Bureau Report.)

[5] Includes $172,000,000 as SWPC share of deferred participations. Data on bank share of participations not available (see Comptroller General of the United States, Report on Audit of Smaller War Plants Corporation, 80th Cong., 2d sess., H. Doc. 549 (1948), pp. 2 and 14).

[6] Includes VA-insured as well as guaranteed loans. See p. 261 for explanation of "insured" loans.

[7] Figures are for the 13b program of the Federal Reserve banks, except that direct loans under that program in the 1934–40 period have been classified (see note 3).

In analyzing lending operations of Government agencies, the following loan classifications are used: (1) Direct loans—funds advanced directly by a Government agency, and (2) participations—which involve agreements by a Government agency to participate in loans made by private lenders. Participations are of two types: (*a*) Immediate participation—a loan in which a Government agency agrees to advance a definite proportion immediately, and (*b*) deferred participation—a loan in which the financial institution makes and administers the entire loan, with a Government agency agreeing to purchase, on demand, an agreed portion of the outstanding balance.

In this report the term "deferred participation" is often used interchangeably with the terms "loan guaranty" and "loan commitment," for in a sense each represents an agreement by which a Federal agency underwrites an agreed percentage of a loan made by a private lender.

In all cases except VA loan guaranties, the Government agency is obligated to take over the guaranteed portion at the lender's option; on VA loans the agency takes over the loan only after the borrower defaults.

Where the term "loan authorized" is used, it refers to the principal sum involved in an approved loan agreement, that is, the total credit made available; unless otherwise indicated, discussions of loan volume in this report refer to authorized loans. A loan disbursement, on the other hand, represents the amount of credit actually advanced. Except in the case of revolving credit authorizations, disbursements are smaller than authorizations because of unused credits and the cancellation of loans after approval.

Prewar years (1934–41)

Federal credit for small business in prewar years was provided largely by the Reconstruction Finance Corporation and the Federal Reserve banks. The RFC established its business loan program under section 5d of the Reconstruction Finance Corporation Act, enacted June 19, 1934. Before that date RFD lending had been confined to the relief of financial institutions. The 1934 amendment permitted the RFC to make loans directly or in participation with private financial institutions to all types and sizes of businesses that were unable to obtain private credit on reasonable terms. From the beginning of its business loan program until December 31, 1941, the RFC approved 10,527 loans authorizing $765 million of credit.[4]

Under section 13b of the Federal Reserve Act, enacted June 19, 1934, the Federal Reserve banks were authorized, under exceptional circumstances, to make commitments to discount loans of financing institutions to established industrial enterprises, to participate with financing institutions in such loans, and to make such loans directly. The purpose was to provide working capital to businesses that were unable to obtain needed financial assistance from the usual sources. During the period 1934–41, which includes the greater part of activity under this program, the Reserve banks approved 3,202 loans aggregating $280 million (table 1).[5]

Measuring the volume of lending to small business under Federal credit programs is often complicated by the absence of a uniform definition of a small business loan or, if loan size is not used, a definition of small business. Furthermore, comparisons from one period to another may be complicated by the fact that a standard adopted for an early period is not adequate for a later period because of a general rise in asset values. During the 1930's and early 1940's the RFC and the Federal Reserve Banks used standard definitions that made it possible to compare their lending to the small business group.

In that period the RFC referred to loans of less than $100,000 as small business loans. On this basis both the RFC and the Reserve banks reported that about one-third of the dollar volume of the loans they authorized was for small business (table 2). If loans of less than $25,000 are considered as making up the group to small business, as was done in a special study by the National Bureau of Economic

[4] For annual volume, see appendix-table 1. Totals in that table and in table 1 include the minor lending programs to mining and fishing industries authorized in the 1934 amendment and the RFC's loans to business under the National Defense Production Act, approved June 25, 1940, which amended section 5d of the RFC Act.

[5] For annual data, see appendix table 1.

Research the small-business portion of RFC financing declines to 11.7 percent of the total amount authorized.[6] A special study of Reserve bank loans defined small business in terms of total assets, that is, as those with assets of less than $50,000. On this basis one-fourth of the number of 13b loans approved and 2 percent of the amount went to small business.[7] On the same basis approximately 4 percent of the amount authorized by the RFC went to small business.[8]

TABLE 2.—*Distribution of loan authorizations of RFC and Federal Reserve banks by size, 1934–41*

[Percent]

Size of authorization	RFC		Federal Reserve banks [1]	
	Number	Amount	Number	Amount
Under $10,000	51.5	4.5	37.4	3.1
$10 to $25,000	19.1	7.2	21.8	6.8
$25 to $50,000	11.2	9.3	17.4	11.3
$50 to $100,000	8.1	13.4	11.8	15.2
$100,000 and over	10.1	65.6	11.6	63.6
All sizes	100.0	100.0	100.0	100.0

[1] Data for June 19, 1934–Dec. 29, 1937.

Sources: Reconstruction Finance Corporation, Quarterly Reports. Board of Governors of the Federal Reserve System, Annual Report (1937).

By all these standards, the amount of small-business financing by the RFC and the Federal Reserve banks during the 1934–41 period was quite small.

War and postwar years (1942–53)

During most of the 1940's, business financing problems were related either to defense or war production or to postwar reconversion. Congressional concern for small business was sharply intensified, in part because of news of the late 1930's that small business needed help in order to survive in an economy marked by economic concentration, and in part because of views that defense procurement catered to big business. Steps were taken to increase both direct lending and Government guaranties of private loans.

Smaller War Plants Corporation.—The first major effort to bring small manufacturers into the war effort was the creation of the Smaller War Plants Corporation (SWPC) by the Small Business Act of 1942. The Corporation established a business lending program involving direct loans and participation in loans made by private financing agencies. The program was designed to make credit available to small concerns pending settlement of their Government contracts, to assist firms in acquisition of surplus property needed for defense production, and to encourage banks to lend to small business concerns engaged in war or essential civilian production. The SWPC defined a small business as one employing less than 500 people. Authorized loans totaled $480 million in the period to January 1946, when the Corporation was terminated.

[6] R. J. Saulnier, H. G. Halcrow, and N. H. Jacoby, Federal Lending and Loan Insurance (Princeton University Press, 1958), pp. 434–435. Cited hereafter as National Bureau Report.

[7] Caroline H. Cagle, "13b Loan Program of the Federal Reserve System, 1934–40" (unpublished mimeographed report, Board of Governors of the Federal Reserve System, 1952).

[8] National Bureau Report, p. 438.

Relative to the scope of the war effort, the lending volume of SWPC was rather small; at no time did the SWPC have more than $40 million in outstanding loans. Reasons may have included the newness of the program, the rather severe loan terms (for example, mortgage security), the extensive coverage of the V-loan program, and the fact that it took from 6 weeks to 2 months to process a loan.

V-loan programs.—To meet the financing needs of businesses for war production purposes in World War II, the Government authorized the guaranty by defense agencies of loans largely by private financial institutions. The program was authorized first by Executive order and later by act of Congress. The Federal Reserve banks acted as fiscal agents of the defense agencies in arranging loans, under procedures established by the Board of Governors of the Federal Reserve System under regulation V, issued in April 1942. This program was in effect during and immediately after the war. The second V-loan program was inaugurated after the outbreak of war in Korea under the authority of section 301 of the Defense Production Act of 1950. The amount of loans authorized under the first program totaled $10.3 billion in the period 1942–46, and under the second program $2.3 billion in the period 1951–53 (table 1).[9]

An analysis of the first V-loan program indicates that small businesses were not the major beneficiaries of the guaranteed loans. Businesses with total assets of less than $50,000 received 1 percent of the $10.3 billion authorized to 4,864 business concerns under that program. If concerns with assets of less than $500,000 are considered small, the small-business segment received 63 percent of the number of authorizations and 9 percent of the amount.[10] If small-business financing is measured in terms of loans of less than $100,000, this group received 32 percent of the number of authorizations and 1 percent of the amount (table 3).

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[9] For annual volume, see appendix table 2.

[10] Susan S. Burr and Elizabeth B. Sette, A Statistical Study of Regulation V Loans (Board of Governors of the Federal Reserve System, 1950), pp. 21 and 59.

TABLE 3.—*Distribution of selected types of business loans and loan guaranties*

[Percent]

Size of loan or loan guaranty (thousands of dollars)	Number of loans or loan guaranties					Amount authorized or disbursed				
	Member bank loans	RFC		Federal Reserve bank loans	Regulation V loans	Member bank loans	RFC		Federal Reserve bank loans	Regulation V loans
		Direct loans	Participations				Direct loans	Participations		
Under 5.0	65.3	28.3	11.1	23.5	10.5	4.1	1.0	0.3	1.2	0.1
5.0 to 9.9	13.9	14.5	13.5	13.9		3.2	1.3	.8	1.9	
10.0 to 24.9	10.7	21.7	22.3	21.8		5.1	4.2	3.0	6.8	
25.0 to 49.9	4.1	13.2	16.4	17.4	8.7	4.2	5.7	4.7	11.3	.2
50.0 to 99.9	2.5	12.0	16.5	11.8	12.3	5.0	9.8	9.6	15.2	.5
100.0 to 499.9	2.4	8.2	15.8	11.6	36.1	16.3	19.0	26.7	63.6	5.0
500.0 to 999.9	.6	1.1	2.2		12.5	12.4	9.5	11.7		4.9
1,000.0 and over	.5	1.0	2.1		19.9	49.8	49.5	43.2		89.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

NOTE.—Member bank loans are term loans made from Nov. 1, 1945, to Nov. 20, 1946, and cover amounts still outstanding on the latter date. (See Duncan McC. Holthausen, Term Lending to Business by Commercial Banks in 1946, Federal Reserve Bulletin, May 1947, p. 505.)

RFC participations refer to authorizations through mid-1947; direct loans to disbursements through December 1951 on loans authorized through mid-1951.

V-loan guaranties cover authorizations through mid-1946 and refer to number of borrowers rather than loans (with borrowers receiving a number of authorizations classified by the size of their largest authorization. (See Susan S. Burr and Elizabeth B. Sette, A Statistical Study of Regulation V Loans (Board of Governors of the Federal Reserve System, 1950), p. 35.)

Federal Reserve bank loans (13b) refer to industrial advances and commitments approved June 19, 1934–December 29, 1937.

Sources: For all programs except Federal Reserve bank loans see R. J. Saulnier, Harold G. Halcrow, and Neil H. Jacoby, op. cit., p. 247. For Federal Reserve bank loans, Board of Governors of the Federal Reserve System, Annual Report (1937).

In view of the nature of defense-related production, it is not surprising that the bulk of V-loan financing was directed to large businesses. The need for large numbers of identical items in military procurement, and price advantages afforded by the economies of large-scale production made it inevitable that war production be concentrated among large suppliers. It should be noted, however, that loan data may understate the aid to small business provided by the V-loan program. Loans extended to big prime contractors undoubtedly widened credit facilities for small firms with subcontracts.

Reconstruction Finance Corporation.—During the 1940's and particularly in the postwar period, congressional pressure put the RFC business loan program into high gear. Although the primary objective was to help all businesses in financing problems associated with the national emergency, special concern was expressed for the welfare of small business. In June 1942 the Congress enacted legislation to mobilize the production facilities of small business in the interest of successful prosecution of the war and for other purposes. This act authorized the RFC to make loans to or to purchase securities of businesses engaged in national defense operations, without the usual restrictions as to collateral, maturity, or use of proceeds.

In 1944, in response to concern for small business, the RFC made a nationwide survey of the financing problems of small business. To meet these problems as they appeared in the survey, the RFC set up its so-called Blanket Participation Agreement (BPA) program in March of 1945. Under this program the RFC automatically guaranteed bank loans to business up to 75 percent of the total authorized amount of such loans, providing the loans conformed to the terms of the blanket participation agreements made with the banks. The loans were administered by the banks except in those cases where the RFC purchased its agreed percentage.

During the 22-month period of the program's operation, more than 11,000 loans totaling approximately $525 million were authorized. Although not confined to small-business loans, the BPA program increased the proportion of RFC credit to businesses that might be classified as small; loans under $100,000 (the RFC criterion of a small-business loan) had amounted to less than 25 percent of the amount authorized, but the proportion increased to more than 50 percent.[11]

The BPA program was criticized by some bankers on grounds that it encouraged loose lending practices by banks, added to the heavy contingent liabilities of the Federal Government, and stimulated inflation. In early 1947, it was replaced by the small-loan participation program, which was similar to the BPA in its emphasis on deferred participations but more restrictive in its loan approval procedures. Unlike BPA which provided for automatic guaranty of loans approved by private banks, the small-loan participation program required that RFC loan guaranties be contingent upon approval by RFC regional offices and a favorable action by the RFC Board. Also, a limit of $100,000 was placed on individual loans.

In the period January 1948–March 1950, the RFC authorized loans totaling $982 million, 25 percent of which involved loans of less than $100,000. Although the proportion was smaller in this period than in 1945–47, it was larger than in the period 1943–45.[12]

After the outbreak of war in Korea, the RFC was ordered to direct its lending to defense-related activities upon certification of essentiality by the Defense Production Administration or any other designated Federal agency as provided by section 302 of the Defense Production Act of 1950. Under section 714 of the same act, the RFC was authorized to make loans (direct and participating) to small businesses certified by the Small Defense Plants Administration as being engaged in defense or essential civilian activities.[13] During the fiscal years 1952–53, 181 loans totaling $16.3 million were authorized under this section.

Small-business loans, of course, were not limited to those made under section 714. In the fiscal year 1953, of 1,027 business loans aggregating $219.7 million authorized under all RFC business-loan programs (except disaster loans), 813 loans totaling $31.6 million were for amounts of less than $100,000. These small loans accounted for 14 percent of the total dollar volume authorized.

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[11] National Bureau Report, table B–48, p. 498.

[12] U. S. Congress. Senate. Special subcommittee of the Committee on Banking and Currency, Hearings on S. Res. 132, 80th Cong., 2d sess., January 14–22, 1948, p. 589. The smaller percentage amounts going to small business reflected the emphasis on defense loans in the middle 1940's.

[13] The Small Defense Plants Administration was created to safeguard and develop the share of small business in the defense effort. Its functions were similar to those of the Smaller War Plants Corporation of World War II, except that it did not have the authority to make loans.

The National Bureau Report provides some insight on the extent to which RFC lending was related to small-business financing in the period 1934–51. In terms of size of the borrowing business, 40 percent of the number of 4 percent of the amounts of direct loans disbursed went to firms with assets of less than $50,000, while 66 percent of the number and 17 percent of the amounts disbursed went to firms with assets of less than $250,000.[14]

In terms of size of the loans approved, approximately three-fourths of the number of direct loans and participations and about 10 percent of the dollar volume were loans of less than $50,000, while about 85 percent of the number and 25 percent of the amount were less than $100,000 (table 3).

Veterans' Administration.—The loan guaranty and insurance program of the Veterans' Administration was developed to aid veterans of World War II. Section 500 of title III of the Servicemen's Readjustment Act gave VA the authority in 1944 to guarantee, and in 1945 to insure, loans to veterans (GI loans) to establish or expand a business. VA has no authority to make direct business loans. According to this act, VA may guarantee business loans made by private lenders up to a maximum of $2,000 or up to 50 percent of the unpaid balance when such loans are not secured by real estate, and to a maximum of $4,000 or 50 percent of the unpaid balance for loans secured by real estate. These provisions, in effect, limit all VA aid through guaranties or insurance to businesses that are small.

According to the 1945 amendment to the Servicemen's Readjustment Act, supervised lenders may elect VA insurance against losses in place of a loan guaranty. Such an agreement insures the lender against loss up to 15 percent of the aggregate amount of eligible loans made. This makes it possible for a lender with a large volume of VA loans to have 100-percent protection on loans that involve losses.

Through 1953, the VA had guaranteed or insured 210,986 business loans amounting to $566 million (table 1).[15] Business loans have always been a small part of the VA program. At their peak in 1946–47, such loans were only 8 percent of the number of loans closed and only 5 percent of the principal amount authorized to veterans under the combined home, farm, and business programs.

At their peak, VA loans were also relatively small in commercial-bank lending to small business. Member-bank loans outstanding to small business in November 1946 were estimated to be about $2.9 billion, or 22 percent of all business loans held by such banks. At about the same time, VA guaranteed or insured business loans were estimated to be only 3 percent of the number and less than 2 percent of the outstanding amount of member-bank loans to small business.[16] This is particularly striking in light of the fact that commercial banks made the majority of all VA-protected business loans.

Although guaranteed loans, quantitatively, played a very small role in bank loan portfolios, they were significant for emphasizing a new type of credit arrangement; namely, the making of term loans to new or very small businesses. Banks were urged to make these loans

[14] National Bureau Report, table B–4, p. 438.

[15] See appendix, table 1, for yearly volume. It should be noted that a major portion of VA business loans in 1951–52 were auto loans resulting from veterans' efforts to get longer credit terms during a period marked by restriction of consumer credit under regulation W. See National Bureau Report, p. 539.

[16] National Bureau Report, pp. 543–544.

with maturities up to 10 years—a longer maturity than normally applied, and at interest rates limited by a legal maximum of 4.5 percent. It is interesting to note, however, that, after the first enthusiasm of the demobilization period had passed, most of the loans had maturities not exceeding 3 years, much less than the legal maximum.

PROGRAMS SINCE 1953

Small Business Administration

Since 1953, the Small Business Administration has had the only significant Government lending program for small business.

Functions and lending authority.—The SBA has three primary functions: To render financial assistance to small-business firms; to obtain for such firms a fair share of Government procurement; and to assist with their management and technical production problems.

This report deals with SBA's first function, which includes essentially the types of lending assistance given by its predecessor, the RFC. SBA provides small-business concerns with needed credit (participations and direct loans) when such financing is not otherwise available on a reasonable basis from banks or other private lenders. It also makes loans to victims of disasters—floods, hurricanes, and, more recently, droughts.[17] Like the RFC, SBA does not provide equity financing.

SBA's share of a loan to any 1 borrower may not exceed $250,000, except for a pool loan in excess of $250,000 to corporations formed by groups of small concerns for the purpose of establishing facilities to produce or secure raw materials or supplies. The exceptional provision has scarcely been used.

In the period August 1, 1953–December 31, 1957, SBA approved 8,597 loans in its business-loan program totaling $398 million (table 4). In the same period, SBA also approved 6,916 disaster loans totaling $72 million, including $59 million to rehabilitate business firms.

TABLE 4.—*Business loans of the Small Business Administration, 1954–57*

[Amounts in millions of dollars]

Period	Applications received		Approved loans, by type							
			Total		Direct loans		Immediate participations		Deferred participations	
	Number	Amount	Number	Amount	Number	Amount	Number	Amount	Number	Amount
Aug. 1, 1953, to July 31, 1954	2,585	$154.5	606	$34.7	200	$10.1	107	$6.8	299	$17.7
Aug. 1, 1954, to June 30, 1955	3,022	161.1	1,039	48.9	346	13.4	179	8.8	514	26.6
1955—July-December	1,503	85.1	625	30.3	221	8.8	205	11.5	199	10.0
1956—January-June	2,578	124.7	1,290	51.6	350	13.5	530	24.1	410	14.1
July-December	3,337	192.9	1,600	70.0	445	18.4	768	29.8	387	13.7
1957—January-June	3,527	188.9	1,936	89.0	593	26.8	992	37.4	351	13.0
July-December	3,002	190.7	1,501	73.3	510	24.2	754	39.9	237	9.1
Total	19,554	1,097.0	8,597	398.1	2,665	115.2	3,535	178.5	2,397	104.3

Source: Small Business Administration semiannual reports.

[17] SBA makes loans to assist in rehabilitation of homes and businesses damaged or destroyed by floods, storms, or other natural disasters. It is also authorized to make loans to businesses which are located in an area designated as a drought-disaster area by the President or the Secretary of Agriculture.

The current lending authority of SBA is $430 million. This is set up as a revolving fund, and it is divided in the following manner: $305 million for business loans, and $125 million for disaster loans. While the authorization sets the limit on total outstanding loans and commitments, it does not automatically provide funds for lending operation. These are appropriated to the revolving fund by Congress annually on the basis of SBA estimates of the funds to be disbursed and committed. SBA pays interest on funds (received from the Treasury) at a rate which for each fiscal year is equal to the average interest rate on Treasury borrowing.

Size standards determining eligibility for financial assistance.—To qualify for a loan a business unit must be small, according to the following definitions:

(1) *Manufacturing concern.*—Small if it employs 250 or fewer employees, including employees of affiliates; large if it employs more than 1,000 persons. If a firm has more than 250 employees but less than 1,000 classification as small or large depends on the type of manufacturing activity.

(2) *Nonmanufacturing concern.*—Wholesalers—small if annual dollar sales are less than $5 million; retail or service trades—small if annual sales or receipts are less than $1 million; construction—small if average annual receipts for preceding 3 years are less than $5 million; trucking and warehousing—small if annual receipts are less than $2 million; and taxicabs—small if annual receipts are less than $1 million.

All firms conforming to the size standards are not necessarily eligible for loans. As a general rule, SBA grants no loans to firms requiring capital to finance a change in ownership, unless the change is necessary to the continued existence of that business. It also grants no loans to recreational facilities or lending institutions. Only recently has SBA extended eligibility to privately owned hospitals, nursing homes, medical and dental laboratories, four-walled theaters, technical and trade schools (if operated for profit), and to small businesses engaged in the practice of a profession or rendering professional service.

Within the framework of its size standards and other eligibility requirements, SBA by December 31, 1957, approved 3,197 loans for $200 million to small manufacturers, 3,207 loans for $97 million to small wholesalers and retailers, and 888 loans for $32 million to service trades.[18] Total business loans included 16 loans made to local development corporations and 1 made in participation with a State development credit corporation.[19]

General lending policies.—The Small Business Act of 1953 permits SBA to make a loan only if credit is unavailable from private sources. In processing a loan application the SBA explores with the applicant all possible means of obtaining private credit, including the possibility of a loan from a local or State development corporation, or from a

[18] Data obtained directly from SBA.

[19] It should be noted that SBA does not make direct loans to State organizations, which include as members financial institutions which furnish funds on the call of the organization. SBA, however, does participate in a loan to a firm certified as a small business. SBA does make loans to local development groups; of the 16 loans made, 15 had bank participation, and 1 was a direct SBA loan. For further discussion of the State development credit corporations, see study 16 (Anderson), p. 336.

private financing institution with a regulation V guaranty if the firm is attempting to finance a defense contract. The Administration also investigates ways and means whereby the potential borrower might increase equity capital and improve financial management in order to strengthen his position as an applicant for private credit.

If the applicant is eligible for SBA assistance, lending policy requires that the forms of assistance be considered in the following order: Deferred participation, immediate participation, and direct loan.[20] As a result, SBA makes a direct loan only if participations are not available.

In view of this policy, it should be noted that since the first half of 1956 the proportion of total loans represented by deferred participations has declined steadily and sharply, while the proportion represented by immediate participations or direct loans has risen (table 5).

TABLE 5.—*SBA loans approved, by type, July 1955–December 1957*

[Percentage distributions of number, within 6-month periods]

6-month period	Total	Direct loans	Participation loans		
			Total	Immediate	Deferred
1955—July to December	100	35.4	64.6	32.8	31.8
1956—January to June	100	27.1	72.9	41.1	31.8
July to December	100	27.8	72.2	48.0	24.2
1957—January to June	100	30.6	69.4	51.3	18.1
July to December	100	33.6	66.0	51.0	15.0

Source: Small Business Administration semiannual reports.

The shift from deferred to immediate participations is explained by SBA as follows:

> Undoubtedly reflects the desire of the banks to use their loan funds to extend credit to as many of their customers as possible. It reflects also the relative unprofitability to banks of deferred participation loans in view of the prevailing higher interest rates now charged for bank loans as contrasted with the interest rate remaining to a bank on a deferred participation loan after the Small Business Administration's participation fee is deducted.[21]

Emphasis on secured loans.—The SBA operates under the statutory requirement that all loans made "shall be of sound value or so secured as reasonably to assure payment." Although the wording suggests alternative measures for protecting the lender, one emphasizing the earnings prospect of the borrower and the other stresssing the market value of collateral, SBA requires that all loans be secured by adequate collateral.

In applying its loan-security requirement, SBA varies its emphasis on collateral as compared with earning ability from loan to loan. The limited loan participation program, established in 1956, illustrates this flexibility. Designed to meet the needs of small retailers, wholesalers, and service concerns that have good earnings records but little tangible

[20] For explanation of the terms, see pp. 254 and 256.

[21] U. S. Small Business Administration, 8th Semiannual Report, 1957, p. 45. It should be noted that in a deferred participation loan, the SBA charges the private lender a participation fee ranging from 1 to 2 percent depending on the share of the loan protected by the SBA participation. The private lender is not permitted to charge more than 6 percent interest on loans in which the SBA participates. Since the participation fee reduces the net return to the private lender, a period of rising interest rates makes the deferred participation loan, with an interest ceiling of 6 percent, relatively unattractive to a private lender.

collateral, the program authorizes SBA to participate in 5-year loans up to $15,000 or 75 percent of the total loan, whichever is smaller. In such loans the SBA accepts the bank's judgment of the borrower's creditworthiness—an appraisal that may place little or no emphasis on tangible collateral. Under this program the SBA from early 1956 through 1957 approved 2,278 loans amounting to $33 million of which about two-thirds went to wholesale, retail, and service concerns.

A review of the reasons why SBA has rejected almost as many loan applications as it has approved reveals that insufficient earning ability has been the most frequent reason, 39 percent of the total number of reasons given, while insufficient collateral has ranked next with 34 percent (table 6).

TABLE 6.—*Reasons given by SBA for declining business-loan applications, May 1, 1954, to Sept. 30, 1957*

Reason	Number	Percentage distribution
Earning ability not demonstrated or assured for future	5,941	39
Insufficient collateral	3,617	24
Insufficient equity investment (including disproportionate debt-net worth ratio)	2,567	17
Need for SBA funds not demonstrated	1,049	7
Unsatisfactory financial condition	1,198	8
Not eligible	278	2
Other	622	4
All reasons [1]	15,272	100
Applications declined	7,018	

[1] Total number of reasons exceeds number of applications declined because in most instances two or more reasons were given for declining.

Source: U. S. Congress. House. Statement before Select Committee on Small Business, hearings, Problems of Small Business Financing (85th Cong., 1st sess., Nov. 19–22, 1957), p. 219 and following.

Interest rates.—The law governing SBA sets a maximum interest rate of 6 percent for business loans. SBA's policy is to make all direct loans at 6 percent and to make participation loans at rates determined by the private lender (within the 6 percent maximum). SBA does not permit a rate differential between bank and SBA shares of a participation loan.

The interest rate on direct loans is not varied from borrower to borrower in any one locality, from locality to locality, or overtime. SBA considers that it is administratively infeasible to work out a schedule of interest rates varying with such factors as loan size, risk, and maturity; it also believes that the rate should be uniform for all parts of the country so that no borrower is placed in an unfavorable competitive position by differentials in local or regional money markets.

Recent congressional pressure to reduce the interest ceiling to 5 percent has been resisted by SBA on the grounds that such a reduction would reduce the attractiveness of the deferred participation to private lenders since the participation fee reduces their net return. The marked decline in the last 2 years in the relative importance of deferred participations tends to affirm this position.[22] SBA also considers that a reduction of the interest ceiling on direct loans would be

[22] If the current decline in market interest rates continues, deferred participations may become relatively more attractive to the private lender.

unrealistic in view of the high administrative costs of making and servicing small loans in a program that requires the detailed screening of applicants to determine not only their inherent creditworthiness but also their inability to secure funds from private lenders.

Operating results.—Closely related to SBA interest rate policies are the operating results of its financial assistance program which includes both business and disaster loans.[23] Lending operations have resulted in net losses in each fiscal year. The net loss for 1957 is reported at $5 million.[24]

Operating losses for SBA must be viewed in relation to the nature of its lending operations. The business loan program involves considerable financial counseling and screening before a loan is approved. The considerable number of loan applications rejected by SBA involves a large amount of administrative expense. Furthermore, of the 8,597 business loans approved since the start of the program, 1,273, or one-seventh of the total, were canceled in full prior to disbursement and yielded no income to meet the expense involved in approving the loans. Also contributing to the operating losses are disaster loans amounting to about 18 percent of the SBA funds authorized. These loans have an interest ceiling of 3 percent as compared with the interest rates of 2⅞ and 3¾ percent paid by the SBA for funds obtained from the Treasury in the fiscal years 1956 and 1957.

The full story on the soundness of SBA loans will not be known until the numerous 5- and 6-year loans fall due or until SBA operates over a full cycle of economic activity. As of December 31, 1957, SBA reported that 114 business loans were in liquidation and that on 157 loans payments due were overdue more than 60 days. Only 14 loans had been charged off for a total SBA loss of $152,000.[25] In most of these cases the collateral was sufficient to protect SBA.

Other programs

Of other Government lending programs currently in existence only one—the fisheries loan program of the Department of Interior—falls within the scope of this report.[26]

The fisheries loan program was established August 8, 1956, to meet the financing problems of fishermen (not shore establishments) who were unable to secure credit from private lenders on reasonable terms. With a revolving fund of $10 million, the Department of Interior extends direct loans with maximum maturity of 10 years to fishermen for the improvement of gear and vessels. In the period December 27, 1956, to January 16, 1958, the Department received 357 applications for direct loans amounting to $13.5 million. Of these, 174 loans amounting to $4.8 million were approved.

The administration of this program is a joint effort of the Interior Department and the Small Business Administration. For a loan of more than $5,000, the SBA provides the credit analysis while the Department of Interior investigates the technical aspects of the vessels

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[23] For accounting purposes SBA currently combines disaster loans and the business loan program.

[24] This refers only to regular lending operations and therefore excludes $1.8 million of expenses incurred by procurement and technical assistance programs. See SBA, 8th Semi-annual Report, 1957, p. 116.

[25] Data obtained directly from SBA.

[26] The small programs of the Bureau of Indian Affairs and the Virgin Islands Corporation have already been mentioned. (See note 3, p. 253.) The lending programs of the U. S. Maritime Administration and the Export-Import Bank provide significant aids to American shipping and trade but have little importance for small business.

and gear to be improved by the loan. SBA disburses loan funds which are charged to the Department of Interior revolving fund.

The Department indicates that loans have ranged from $750 to $250,000; all loans have been made at an interest rate of 5 percent (legal minimum is 3 percent) with an average maturity of 8 years; that banks normally do not extend credit of such maturity to fishermen; and that, considering the nature of the fishing industry, the program may be considered a small-business financing program.[27]

GENERAL CHARACTERISTICS OF LOAN PROGRAMS

Certain characteristics of lending activities for small business under Government programs emerge from the experience since 1934. These characteristics provide a basis for evaluating the effectiveness of Government programs in meeting the financing needs of small business. The characteristics may be summarized as follows:

(1) Avoidance of competition with private lenders and the related emphasis on participation arrangements with private lenders, especially deferred participations.

(2) Emphasis on secured loans.

(3) Elaborate procedure of loan processing involving counseling on business management matters.

(4) Large proportion of loan applications denied.

(5) Relative inflexibility of interest rates over time and absence of differentials for varying size, risk, and maturity of loans.

(6) Intermediate-term financing for working capital purposes.

(7) Large proportion of loan approvals for manufacturing enterprises.

(8) Subsidy aspects of programs.

Avoidance of competition with private lenders

The policy of extending credit only if it cannot be obtained from private financing institutions has been a statutory requirement for most Federal business loan programs. In this sense the direct loans of SBA, RFC, SWPC, and the Federal Reserve banks have been last-resort credit facilities to be used only if other credit channels were closed.

In all programs an effort has been made to extend credit, whenever possible, under some collaborative arrangement with private financing institutions. Approximately 70 percent of the amount of loans approved by SBA have been participation loans (table 5); more than half of the number and two-thirds of the amount of Federal Reserve bank industrial loan authorizations were made cooperatively with commercial banks; and RFC participations represented a considerable proportion of its total credit. (During the period from mid-1946 to mid-1947, RFC participations exceeded direct lending in amount.)[28] In the V-loan and VA programs, almost all loans were

[27] Data obtained directly from Department of the Interior and SBA.

[28] National Bureau Report, pp. 260 and 482–483. In the 1946–47 period RFC participation loans outnumbered direct loans in the ratio of 7 to 3.

made by private lenders and protected in part by Government guaranties or insurance.[29]

Emphasis on secured loans

In contrast to term lending by commercial banks, which involves some unsecured loans, all loans of SBA, RFC, SWPC, the Federal Reserve banks, and the Department of Interior have been secured. Although the statutes governing these agencies do not specifically require secured loans, the administrators of business-loan programs have assumed that assurance of repayment, which is a statutory specification, means requirement of collateral.

This emphasis on secured loans is not surprising in view of the nature of the loan programs. The Government loan officer is required to restrict his loans to concerns unable to attract private credit but nevertheless is expected to avoid lending to concerns whose chances of repayment are remote. Although some borrowers appearing at Government loan windows are creditworthy (having had their applications rejected by commercial banks because the maturity requested was too long, or because the bank lacked experience with the type of credit requested, or because the amount sought exceeded the lending limit of the bank), there is little question that many borrowers have been substandard from a bank credit point of view. The National Bureau Study of RFC borrowers reveals that the majority of loan applicants had very inadequate working capital and a high ratio of indebtedness to net worth.[30] Since appraisal of character and earnings prospects is a matter of judgment, and in the event of mistake difficult to defend before a congressional committee, the Government loan officer, in order to have reasonable assurance of repayment of a loan, seeks to limit risk by requiring something objective and measurable—collateral.

Elaborate procedures of loan acquisition and servicing

Since Government loan programs are directed to applicants with credit rejections from private lenders, a difficult task of credit investigation and loan procedure is imposed on the Government loan officer. It is a task that combines an analysis of borrower eligibility and creditworthiness with managerial counseling.

In addition to the credit analysis, made more complex by the marginal risk status of many applicants, a considerable portion of time and expense is used in screening applicants to determine their eligibility for financing aid under the particular loan program. SBA reports that it requires tangible proof of refusal by private banks to extend credit and that it considers possible assistance available from other private sources including local and State development corporations. It also negotiates with banks on possibilities of immediate or deferred participations.

In processing loan applications, the Government lending agencies find that a considerable number of applicants need managerial assistance more than they need credit. Consequently, it counsels the applicant on possibilitities that might strengthen his credit standing among private lenders, including accounting and auditing methods, other

[29] Under regulation V, any financing institution, public or private, may apply for the guaranty of a portion of a loan to a war producer. Practically all applications, however, were made by commercial bankers.

[30] National Bureau Report, p. 450.

aspects of financial management, and means of increasing equity capital. The SBA reports that—

> often the problem is undercapitalization or perhaps a need for liquidation of inventory or obsolete equipment, revision of credit policies, or a change in product pricing principles * * *. A firm's product line may be too broad or too limited or its sales policies may need review * * *.[31]

The RFC, by using its engineers, accountants, and other personnel trained in business problems, was often able to determine the major aspects of the problem confronting the applicant. It often found that the borrower's main difficulty was in stating his case for credit even when his record warranted credit accommodation. Frequently, he was convinced, after scrutiny by financial counselors, that he did not need credit, or after a revision of his credit application, he was able to secure the credit from a private lender.

In a study of the industrial loan experience of New York Federal Reserve Bank, Robert Roosa observes that—

> Through the analysis of risks, prior to approval of the applications one fact stood out; virtually all of the applicants seemed to have a greater need for managerial assistance than for credits; in many cases, what the borrower considered to be a need for credit was merely a surface manifestation of underlying weakness in the technical, sales, financial, or accounting aspects of his own management.[32]

One of the problems of a lending procedure designed to provide reasonable assurance of repayment from applicants of questionable creditworthiness is the amount of time used in analysis of loan applications and in approving and closing loans. All Government loan programs have been criticized for delays in acting on loan applications and for requiring much information not readily available to the small-business man. It has been charged that complicated forms, involved procedures, and detailed appraisals of financial statements and collateral deter potentially creditworthy applicants from seeking assistance from Government lenders. Although it is impossible to evaluate the validity of these charges, it is significant that the RFC, SWPC, the VA, and more recently the SBA, have attempted to streamline their procedures for the smaller loans by developing some form of automatic program, involving deferred participations or guaranties in which responsibility for most of the credit analysis is assumed by private lenders. The SBA, in its limited loan participation program has found this to be particularly helpful in expediting loans to small retailers, wholesalers, and service trades. The Administrator reports that such loans are processed within 24 to 36 hours after receipt as compared with 3 to 4 weeks for regular SBA business loans.

Large proportion of application denied

An interesting commentary on the lending standards of the Government loan programs is the proportion of loan applications denied. Over the period 1953–57, the SBA declined 8,124 applications, approximately half of the total considered, and in the period 1934–51 the RFC rejected a similar proportion of about 88,000 applications for business

[31] U. S. Congress, Senate Subcommittee of the Committee on Banking and Currency, hearing, Credit Needs of Small Business, testimony of W. B. Barnes, 85th Cong., 1st sess., June 3–20, 1957, p. 354.

[32] R. V. Roosa, The Industrial Loans of the Federal Reserve Bank of New York, speech delivered before the 6th Annual Convention of the National Conference of Commercial Receivable Companies, New York, October 15, 1950 (mimeographed).

loans of all sizes (exclusive of applications under blanket participation agreement.) During the period 1934–40, perhaps the most active phase of the Federal Reserve industrial loan program, 70 percent of the applications were declined.[33] The Smaller War Plants Corporation which operated during the war when credit standards of lending agencies were liberalized to expedite the war effort, denied approximately one-third of the dollar volume of applications.[34] Since the reasons for loan refusals center on the inability of the applicant to demonstrate sustained earning power, on insufficiency of collateral, and on inadequacy of equity investment, the high proportion of loan applications rejected is at least partially indicative of weakness in the credit standing of applicants and of unwillingness of Government loan officers to subsidize heavy risks or to prolong the operation of a business likely to fail.

Uniform interest rates

In most Government credit programs the interest rate is uniform for all geographical areas and for all loan sizes, risks, and maturities. Another characteristic is that rates change infrequently.

The SBA policy of operating at uniform interest rates within the 6 percent maximum rate was discussed on page 24 to 26. The rate on RFC loans of 5 percent during 1934–38 was reduced as a matter of policy to 4 percent for the period 1939–49 and then raised again to 5 percent. The SWPC maintained a 4 percent rate throughout its program, and under the V-loan programs providing loan guaranties, the Board of Governors of the Federal Reserve System limited the interest rate that could be charged by the lender to 5 percent until May 1957, when it was raised to 6 percent.

On guaranteed business loans secured by real estate, the VA had an interest rate ceiling of 4 percent until 1953 when it was increased to 4½ percent.[35] On insured business loans not secured by real estate, the maximum rate has been 5.7 percent since 1947.

In the beginning of the Federal Reserve industrial loan program, six Reserve banks announced standard interest rates, while the remaining banks published rates varying from 4 to 6 percent. While all banks eventually adopted a range of rates, the range permitted only a partial reflection of the variation of individual loan risks and costs.

In contrast to the uniformity of the Government loan rate on business loans, the interest rate structure on business loans at commercial banks is marked by differentials that reflect variations in size of loan and of borrower. Rates tend to be higher on small than on large loans because of the higher cost of making and servicing a small loan, and rates generally rise as the size of the borrower decreases, probably reflecting greater risk to the lender in lending to small businesses.

An important aspect of the uniform and relatively inflexible interest rates charged under Government loan programs since the mid-1940's is that the rates on small loans, have been below the rates charged by commercial banks for comparable loan sizes and risks. The RFC rate of 4 percent in effect in 1946 was below the average long-term rate

[33] This high percentage reflects in part statutory requirements, especially that credit be restricted to working capital loans.

[34] Based on applications during 1942–44, Donald R. Fuller, Government Financing of Private Enterprise (Stanford University Press, 1948), p. 151.

[35] A 1948 amendment permits the Administrator, with the approval of the Secretary of the Treasury, to approve of rates up to 4½ percent per annum on guaranteed loans. The rate was held at 4 percent, however, until 1953.

charged by commercial banks on all term loans of less than $50,000 and to borrowers with assets of less than $750,000 (table 7). Evidence that the RFC rate was well below commercial bank rates is striking in view of the fact that during 1945 and 1946 80 percent of the RFC loans were less than $50,000, and that many of its loans went to new businesses and to unincorporated business enterprises with risk characteristics that commercial banks would not be likely to assume except at rates higher than the reported averages.[36] Thus there is no doubt that the RFC was making small loans at bargain rates, if not below cost.

TABLE 7.—*Average interest rates on long-term business loans at member banks, Nov. 20, 1946,[1] by size of loan and size of borrower*

[Percent per annum]

Amount of loan (thousand dollars)	All borrowers[2]	Total assets of borrower (thousand dollars)				
		Under 50	50 to 250	250 to 750	750 to 5,000	5,000 and over
Less than 0.5	8.9	9.0	6.9	6.8	----	----
0.5 to 0.9	7.7	7.8	6.0	4.9	----	2.4
1.0 to 4.9	5.9	6.0	5.6	5.0	4.5	2.4
5.0 to 9.9	5.1	5.2	5.0	4.3	3.3	2.4
10.0 to 24.9	4.6	4.8	4.5	4.3	4.5	2.4
25.0 to 49.9	4.2	4.5	4.3	4.2	3.6	2.4
50.0 to 99.9	3.8	----	4.2	4.0	3.3	2.2
100.0 to 499.9	3.0	----	4.3	3.9	3.2	2.2
500.0 to 999.9	2.4	----	----	3.8	3.2	2.1
1,000.0 and over	2.1	----	----	----	2.8	2.1
All loans	2.8	5.4	4.4	4.0	3.2	2.1

[1] Long-term loans are defined as those maturing in over 1 year.
[2] Includes rates paid on small amount of loans unclassified by size of borrower.

Source: Richard Youngdahl, "The Structure of Interest Rates on Business Loans at Member Banks," Federal Reserve Bulletin, July 1947, p. 816.

A similar comparison may be made of the SBA standard loan rate and commercial-bank rates in 1955. Taking account of the fact that SBA charged a 6-percent interest rate on all its direct business loans, that 20 percent of the loan approvals were for less than $10,000, and that 53 percent involved loans of $25,000 or less, the average commercial-bank rate of 7.8 percent on loans of less than $10,000 and 6.2 percent on loans of $10,000–$25,000, furnish some evidence of the relative underpricing of SBA credit.[37] Data available in the 1955 Federal Reserve Business Loan Survey indicate that approximately 47 percent of the number of all business loans (all maturities) and 70 percent of all 1- to 5-year term loans outstanding as of October 16, 1955, carried interest rates of 6 percent or more. Practically all the above-mentioned high-interest loans were in the small-business category. Except for some widening of the differential between the inflexible uniform SBA rate and commercial-bank rates, the picture for 1957 is similar to 1955.[38]

[36] National Bureau Report, p. 255. U. S. Congress, Senate, Special Subcommittee of the Committee on Banking and Currency, hearings on S. R. 132, 80th Cong., 2d sess., January 14–22, 1948, p. 589.
[37] Unpublished data, 1955 Business Loan Survey, Board of Governors of the Federal Reserve System.
[38] Available data indicate that during the period 1955–57 of generally rising interest rates, the rates charged small borrowers rose relatively less sharply than those charged large borrowers.

The level of the standard loan rate—uniform and relatively inflexible—in Government loan programs has made public credit relatively more attractive than private credit, particularly in periods of rising-market interest rates. Whether such a pricing relationship with its impact on the allocation of credit is desirable is a matter of individual judgment as to the necessity for providing special inducements for small-business borrowing.

There is no doubt, however, that, unless uniform interest rates are geared to the high costs of administering small-business loans, the Government loan agency finds itself in a position where it is making many of its small-business loans below cost. SBA loan costs exceed income for loan sizes up to $20,000 (table 8), while the RFC loan costs (excluding provisions for losses) exceeded income on loan sizes up to almost $100,000.[39] In such a situation, the lending agency must rely on the profits of larger loans to offset the losses incurred by the smaller ones.

In periods of rising interest rates, the uniform and inflexible loan rate on public credit tends to jeopardize the position of deferred participations or loan guaranties. The recent experience of SBA, when interest rates were rising, reveals that, at the ceiling rate of 6 percent on deferred participations, commercial-bank lenders were reluctant to engage in a participation agreement that required them to pay a participation fee to SBA for the protection of a loan which yields a gross interest of only 6 percent. During the fiscal year 1957 and the first half of fiscal 1958, the proportion of business-loan approvals made on a deferred-participation basis dropped from 32 to 15 percent.

TABLE 8.—*SBA costs, revenues, and margins for loss on business loans, by size*

[Estimates in dollars calculated for a 5-year amortized loan with a standard interest rate of 6 percent]

Size of loan (dollars)	Costs excluding provision for loss			Gross revenue [3]	Margin for loss
	Acquisition, closing, and service [1]	Interest [2]	Total		
1,000	1,832	90	1,922	180	−1,742
5,000	1,832	450	2,282	900	−1,382
10,000	1,832	900	2,732	1,800	−932
20,000	1,832	1,800	3,632	3,600	−32
25,000	1,832	2,850	4,682	5,700	+1,018
50,000	1,832	4,500	6,332	9,000	+2,668
75,000	1,832	6,750	8,582	13,500	+4,918
100,000	1,832	9,000	10,832	18,000	+7,168

[1] Acquisition cost (processing) estimated at $365; closing cost, $267; and cost of servicing for 5 years, $1,200; for a total of $1,832. This total is assumed to be constant for all loan sizes and to be incurred when loan is made.

[2] Interest on Treasury funds assumed to be 3 percent of outstanding loan balance or ⅗ of original principal.

[3] Revenue calculated at 6 percent of average outstanding loan balance or ⅗ of the original principal.

Source: U. S. Congress, House, Subcommittee No. 2 of the Select Committee on Small Business, hearings, The Small Business Administration, pt. I, 85th Cong., 1st sess., April 1957, p. 429.

The VA, although it imposes no guaranty or insurance fee on commercial banks making protected loans, indicates that the ceiling rate of 5.7 percent permitted for non-real-estate insured loans has recently narrowed bank participation in the VA loan program.[40]

According to estimates in the National Bureau Report, the representative loan involving a VA guaranty during the 1946–47 period of

[39] National Bureau Report, table B–53, p. 513.

[40] See appendix table 3.

peak operations was a $3,000 loan with a maturity of 3 years made to a very small firm.[41] It is pointed out that commercial banks would normally impose an interest charge of 9½ to 10 percent per annum on an unguaranteed loan of this type, and that, after the initial patriotic support of the veterans program subsided, the business-loan guarantee-insurance program, with its 5.7 interest rate maximum for non-real-estate loans, was bound to diminish in scope.[42]

At the ceiling rate of 5 percent for V loans, bankers apparently were reluctant to extend credit under such loan guaranties during a period when net interest returns were greater from alternative loans or investments. In May 1957, the Board of Governors of the Federal Reserve System raised the maximum rate to 6 percent.

Intermediate-term financing for working capital

Most Government lending programs for small business have provided, primarily, medium-term working-capital loans. The Federal Reserve industrial loans were limited by law to working-capital purposes and to a maximum maturity of 5 years. Borrowers from the RFC used credit to augment working capital in 34 percent of the number and 38 percent of the amount of direct loans.[43] The major proportion of RFC direct loans had maturities of 5 to 9 years. Of the $398 million authorized by SBA, 36 percent was borrowed for working-capital purposes, the predominant proposed ues of SBA business loans. The average maturity of SBA loans is 5 years. In 1945, the SWPC reported that 80 percent of its loans were for working-capital purposes. Because most SWPC loans were geared to the performance of specific war-production contracts, the maturities were primarily short rather than intermediate term. The business loans underwritten by VA involved maturities averaging 3 years during the most active years of the program.

It is noteworthy that most Government credit programs operated well within their statutory limits on loan maturities. For SBA, SWPC, RFC, and VA, these averaged 10 years, but most loans were of considerably shorter maturity. There is no explicit explanation of this phenomenon. The stress on intermediate-term financing may reflect the inability of small business borrowers to furnish reasonable assurance of repayment over longer periods or it may indicate that small business applicants do not seek long-term loans from Government lending agencies. SBA states that its average maturity of 5 years for business loans indicates that the majority of SBA borrowers are seeking intermediate- rather than long-term financing. This impression is not conclusive as to the nature of small business credit demands, since some studies of small business borrowers indicate that a significant portion of the demand for credit is never brought to the attention of lenders because potential borrowers anticipate rejection of their credit applications.[44]

The average maturities of loans under Government programs, although shorter than their legal maxima, are somewhat longer than the average maturity of term loans by commercial banks. About one-

[41] National Bureau Report, p. 557.
[42] Ibid., p. 532. It should be noted that another reason for the decline of the VA business-loan program is the desire of veterans to conserve their GI benefits for home purchases.
[43] Ibid., p. 436.
[44] See study 4 (Kaplan and Banner), p. 116.

fourth of the nnumber of member bank loans to small business outstanding in the latter part of 1946 were term loans (maturities over 1 year). Only 20 percent of these term loans had maturities of over 5 years, with more than 60 percent of term loan maturities for periods of 1 to 3 years.[45]

The surveys of 1955 and 1957 show that, as compared with 1946, a larger proportion of loans to small businesses were in the form of term loans, but that about 75 percent of such term loans had maturities of 1 to 5 years.[46]

Concentration of loans among manufacturers

With the exception of the VA business loan program, a very large proportion of lending under Government credit programs has been concentrated in the manufacturing sector of the economy.

With manufacturing concerns representing less than 10 percent of the total number of business concerns in the United States, 37 percent of SBA loans were directed to this sector. The RFC had an even greater concentration, with 48 percent and 60 percent respectively of its direct loans and participations going to manufacturing.[47] Approximately 57 percent of Federal Reserve banks' industrial loan approvals were for manufacturing enterprises (table 9). In contrast, among the members bank loans outstanding in November 1946 with VA protection, 63 percent were extended to the retail and service groups combined.

The usual explanation for this concentration in the manufacturing area is that manufacturers have greater needs for the longer maturities because of their greater use of fixed assets. It is said that because they require loans of larger size and longer maturities than commercial banks are willing to grant, and because they are exposed to greater fluctuations in earning power, they find more frequently than do businesses in other activities that Government loan programs may be their only source of funds.

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[45] Charles H. Schmidt, Member Bank Loans to Small Business, Federal Reserve Bulletin, August 1947, table 8, p. 972.

[46] See Pt. II, Surveys of Credit and Capital Sources, survey II.

[47] These exclude blanket participations. Of participations authorized under the blanket agreements, 39 percent went to manufacturing.

TABLE 9.—*Industry groupings of business firms and of business loans and loan guaranties from selected sources*

[Percentage distributions within groups]

Industry	All United States business firms	Number of loans				
		Member bank loans	RFC		Federal Reserve bank loans	SBA loans
			Direct loans	Participations		
Manufacturing and mining [1]	9	15	48	60	57	37
Construction	8	5	6	7	3	6
Wholesale trade	5	7	5	5	11	37
Retail trade	43	37	16	13	21	
Transportation, communications, and public utilities [2]	5	12	[3] 8	6	1	5
Services	22	17	15	4	5	10
Finance, insurance, and real estate	9	[3]	1	3		
All other	[4]	[5] 7	[6] 2	[6] 1	2	5
Total	100	100	100	100	100	100

[1] Predominantly manufacturing.
[2] Excludes loans to railroads.
[3] Less than 0.5 of 1 percent.
[4] Not covered in Department of Commerce estimates.
[5] Excludes loans to farmers, but includes loans to real-estate industry and a few not classified by industry.
[6] Includes loans to forestry, fishing, and farming industries (mainly the latter 2).

NOTE.—Business firms are those in existence at end of 1949 (see Survey of Current Business, January 1952 p. 10).

Federal Reserve bank loans represent applications approved Jan. 1, 1935–May 1, 1940; see Charles L. Merwin, Jr., and Charles H. Schmidt, Capital and Credit Requirements of Federal Reserve Industrial Loan Applicants (National Bureau of Economic Research, Financial Research Program MS, 1942), pp. A-7 ff.

Small Business Administration loans include immediate and deferred participations approved Sept. 28, 1953–Dec. 31, 1957.

For description of member bank loans and RFC direct loans and participations see table 3.

Sources: U. S. Department of Commerce, Survey of Current Business, January 1952, p. 10. National Bureau Report, p. 250. U. S. Small Business Administration, 9th Semiannual Report, Dec. 31, 1957.

SBA experience furnishes another possible explanation of the importance of manufacturers' loans in the portfolios of Government agencies. It found that the collateral requirement makes it difficult for small businesses in retail and wholesale trade and in service lines to compete with manufacturers in obtaining loan approvals. As was pointed out earlier, the SBA instituted the limited loan participation program in order to make possible loan approvals for very small businesses that had good earnings records but little tangible collateral. Under this program the proportion of approvals for nonmanufacturing activities increased greatly.

Subsidy element

The Government loan programs have not been financially self-sustaining; in each case, the income from interest and participation and guaranty fees has not covered costs, if costs are considered to include the administrative costs of making and servicing loans, the provision for realized and anticipated losses on loans, and the cost of the funds used in the program. This has been the experience of SBA (table 10) and of the RFC and the Federal Reserve banks (in 13b loans).[48]

[48] National Bureau Report, pp. 273 and 511. The RFC income and expense data cited relate to the period July 1, 1948–March 31, 1950, only.

TABLE 10.—*Statement of SBA income and expense,[1] fiscal years, 1954–57*

[Thousands of dollars]

Account	1954	1955	1956	1957
Income:				
Interest earned	$26.0	$690.4	$2,131.1	$5,183.2
Fees earned on deferred participation loans	5.7	160.0	312.2	412.0
Miscellaneous		2.6	6.5	25.4
Total income	31.7	853.1	2,449.9	5,620.7
Expense:				
Interest paid to Treasury on revolving fund disbursements	14.5	276.0	1,180.6	2,996.2
Administrative expense	1,512.7	2,620.7	3,837.1	5,456.2
Provision for losses:				
On business loans	46.8	426.6	585.5	1,509.2
On disaster loans	16.5	280.9	1,688.5	712.7
Other operating expense		.1	3.3	13.7
Total expenses	1,590.6	3,604.2	7,294.9	[2] 10,687.4
Net loss	1,558.9	2,751.1	4,845.0	5,066.7
Administrative expenses of financial counseling program (financed by direct appropriation)	249.5	332.6	496.7	[3] 898.9
Ratio of administrative expenses to income (percent)[4]		346	177	97

[1] Covers only regular lending operations. Excludes expenses of other SBA programs and the expense of operations with respect to the liquidation of RFC disaster loans.
[2] Expense total reduced by $654, which represents assets acquired in liquidation of loans.
[3] Financed from the revolving fund in 1957, and is a part of the administrative expense figure above.
[4] Includes expenses of disaster loan program.

Source: U. S. Congress, House, Subcommittee No. 2 of the Select Committee on Small Business, hearings, the Small Business Administration, pt. I, 85th Cong., 1st sess., April 1957, p. 429.

Even without provision for losses on loans, both SBA and RFC incurred deficits in their operations. In fact, the ratio of administrative expense to income for SBA provided no margin, except in 1957, for the payment of interest on funds advanced by the Treasury and also nothing for realized and anticipated losses on loans (table 10). Similarly, the RFC margins for 1949 and 1950, were too small to cover the full costs of Treasury funds.[49]

While the Federal Reserve program shows a better relationship between administrative expenses and income, it should be noted that the Reserve banks absorbed overhead expenses that might have been allocated to the 13b program. Experience at the New York Federal Reserve Bank indicated that had it not been for one large loan of several million dollars, the total earnings of the program there would have been barely enough to cover current expenses and about one-sixth of the realized losses.[50]

The unsatisfactory relationship between administrative expense and income as reported by SBA and by RFC, and to a lesser degree by the Federal Reserve banks, reflects in part the impact of standard loan rates that offer small loans below cost and the heavy expense of loan acquisition and of loan servicing.

Loss experience

Provision for anticipated and realized losses is an important expense item in the operating results of Government credit programs. This, of course, reflects the high risk element in a borrowing clientele previously denied credit by private lenders.

[49] The RFC was able to report profits for this period only because it excluded $350 million of interest-free capital from its calculations of interest expense for funds used.
[50] Roosa, op. cit.

Comparisons of loss experience among the Government programs are difficult because comparable data are not available and because the time span differs for each program. Available data on loss ratios are shown in table 11.

The National Bureau reports on the basis of its survey of RFC loans that RFC losses, on loans extinguished before 1952, appear to have been heaviest on loans to very small firms, that is, those with assets under $25,000, and to businesses just organizing at the time the loan was made.[51] Approximately two-thirds of the RFC business loans extinguished with loss were made to newly established firms. In commenting on the V-loan program, it was noted that the losses involved, small as they were, represented mainly credits to small manufacturing plants.[52]

SIGNIFICANCE OF PROGRAMS FOR SMALL BUSINESS

The contribution of Government business loan programs has centered on the provision of intermediate-term credit. The bulk of loan authorizations has been concentrated in maturities from 3 to 5 years to be used for working capital purposes. The Government programs—prevented by law from equity financing and authorizing only minimum amounts of long-term loans for the construction of facilities—probably have contributed more to the modernization than to the growth of small business.

TABLE 11.—*Business-loan losses and loss ratios of selected Federal agencies*

Agency	Period covered	Realized and estimated losses (millions of dollars)	Loss ratios
Reconstruction Finance Corporation.	1934–51	[1] 14.6	1.3 percent of all direct business loan disbursements; or 2.1 percent of amount disbursed on loans extinguished prior to 1952.
Federal Reserve banks (13b)	1934–40	[1] 3.0	4.8 percent of total advances during period.
Veterans' Administration	1944–July 1957	[2] 10.7	1.7 percent of all business loans guaranteed or insured; or 2.7 percent of original amount of loans repaid in full.
V-Loan program	1942–46	6.0	0.06 percent of total loans authorized.

[1] The RFC and Federal Reserve loss ratios are not comparable since RFC data cover a 20-year period with the bulk of loans closed during the prosperous postwar years. Estimated losses incurred by the Reserve banks in the 1934–40 period were sharply reduced by the boom conditions of the war and postwar periods. At the end of 1951, estimated losses had declined to $1,900,000 and the loss ratio had been reduced to 0.6 percent of all loans made through 1951.

[2] The full loss on small business loans guaranteed by the Veterans' Administration is not known because VA collects data only on that part of the loss compensated by Government guaranty or insurance.

NOTE.—Comparable figures are unavailable for commercial bank term loans. It may be noted that in 1951 insured commercial banks reported losses, chargeoffs, and transfers to reserve accounts amounting to less than 0.50 percent of loans and discounts of all types and maturities outstanding at the end of the year; the comparable figure for 1955 was 0.06 percent.

Sources: National Bureau Report, pp. 271, 272, and 472. Veterans' Administration, Loan Guaranty, July 1957, p. 51.

Another contribution of Government business loan programs has been through their emphasis on lending in participation with private financial institutions, and thus on the character of bank lending to

[51] National Bureau Report, p. 270.
[52] Ibid., p. 92.

business. The stress on participations, particularly deferred participations, has stimulated the use of term loans by banks and also tends to increase the size of loans authorized. Although a number of factors have contributed to the growth of term lending by banks, there is little question but that term lending by Federal credit agencies accelerated bank interest in the use of such loans.[53] By underwriting term loans made by private lenders the Government loan programs reduced the risk of loss by private lenders, thus encouraging banks to explore the possibilities of term loans to relatively new and small enterprises. This was evident first in the blanket participation program of the RFC and in the VA-protected loan program, and is currently seen in the limited loan participation program of the SBA.

In terms of loan sizes, participation lending has enabled banks to make larger loans to individual borrowers without incurring what they regard as undue risk through insufficient asset diversification. Banks have rejected loan applications of some creditworthy borrowers simply because the amount requested exceeded the amounts they could legally or prudently lend to one borrower. Participation lending permits banks to authorize loans in amounts exceeding the legal limit as long as the excess is guaranteed by the Government agency. Of the RFC participation loans authorized during 1934–47, 25 percent involved amounts exceeding the lending bank's legal limit.[54]

According to some critics, Government protection of bank loans leads to a lowering of banking lending standards. Such Government support, however, has broadened intermediate-term credit facilities for both creditworthy and marginally creditworthy applicants.

Still another significant contribution of Government loan programs to small business has been the financial and technical counseling related to the processing and servicing of loans. Since small business tends to lack broad management skills, the technical aids offered by the Government programs help to solve credit problems indirectly. The Government agency, by providing the necessary financial counseling, has made it possible in many instances for the applicant to obtain credit from a private lender.

Measured quantitatively, Government financing of small business has not been great. From table 12, it is clear that, whatever the criteria used in defining small business, the dollar volume of loans to this sector was relatively small for programs conducted by the RFC and the Federal Reserve banks, and very small for the V-loan program.[55] The proportion of SBA loans made to small businesses has been larger, as has been that for loans underwritten by VA (not shown in the table).[56]

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[53] Ibid., pp. 284–285.

[54] Ibid., p. 495.

[55] The problem of measurement is further complicated by the fact that small business requirements have increased considerably in dollar terms through the time span covered in this report. For instance, "* * * the type of retail business that could be started, with as little as $1,500 in the 1930's is likely to require $12,000 or more if it is to put up a successful front in the present day." Hearings, Credit Needs of Small Business, testimony of A. D. H. Kaplan, p. 209.

[56] For comment on VA business loans for the purchase of autos, see footnote 15.

TABLE 12.—*Loans to small business classified by varying criteria of size*

[Percentage of total amounts of business loans authorized by selected agencies]

Agency or program	Total business loans authorized (millions of dollars)	Criteria used in classifying as "small business" [1]			
		Loan of less than $100,000	Asset size of borrower		
			Less than $50,000	Less than $250,000	Less than $500,000
RFC [2]	[3] 5,613	25	4	17	24
Federal Reserve banks	[3] 851	36	2	13	(4)
V-loan programs	[3] 13,232	1	1	(4)	9
SBA	[3] 398	61	(4)	(4)	(4)

[1] The RFC considered all loans of less than $100,000 as "small business" loans. The Federal Reserve usually classified borrowers from the Reserve banks and V-loan borrowers in terms of total assets, those with total assets of less than $50,000 being considered "very small." The proportions for Federal Reserve bank loans are based on loan activity during the period 1934–40; since that time few loans have been authorized but most of them have been large. Thus the percentages shown in this table clearly overstate the proportions of total amounts to date that have been authorized to small business.

[2] Estimated percentages for entire period 1934–53, based largely on National Bureau studies covering period 1934–51.

[3] Direct loans and participations with private lender institutions.

[4] Not available.

[5] Loan guaranties.

Sources: Data for loan sizes for RFC, Federal Reserve banks, and V-loans are from table 3 of this paper; for asset sizes, from National Bureau Report, p. 438; Caroline H. Cagle, 13b Loan Program of the Federal Reserve System, 1934–40 (unpublished mimeographed report, Board of Governors of the Federal Reserve System, 1952), p. 51; Susan S. Burr and Elizabeth B. Sette, A Statistical Study of Regulation V-Loans (Board of Governors of the Federal Reserve System, 1950), p. 21 (V-loans 1942–46) and Federal Reserve files (V-loans 1950–57). All data for SBA loans are from Small Business Administration, 9th Semiannual Report, Dec. 31, 1957.

When related to member bank financing of small business, as reported in the Federal Reserve business loan surveys of 1955 and 1957, the combined volume of SBA and VA business loans and commitments outstanding at the end of 1955 was only 2 percent ($118 million) of the $6.3 billion of small business loans outstanding at member banks in October 1955. The combined loan and commitment total for SBA and VA increased to $283 million outstanding on December 31, 1957, or 4 percent of the $6.9 billion reported as small-business loans of member banks outstanding in October 1957.

Measured in terms of the number of business units in operation, it also appears that Federal credit agencies have served a very small section of the business population. In the peak years for the largest programs, the number of loans authorized was less than 11,000 (in 1946) for RFC, less than 45,000 (in 1946) for VA, and less than 4,000 (in 1957) for SBA. For all programs combined, around 55,000 loans were authorized in the peak year (1946). In most years all these numbers were very much smaller.[57] The number of borrowers served was insignificant in relation to a total business population of 4 million, and probably even in relation to small concerns with marginal creditworthiness.[58]

As has been pointed out, however, the significance of Government financing programs for small business is much broader than the num-

[57] See appendix tables 2 and 3.

[58] The number of loans authorized exceeds the number of business borrowers inasmuch as some borrowers receive more than one loan, and loan authorizations are often canceled before disbursement. In the first V-loan program, for instance, the number of loans was twice the number of business units receiving credit.

ber or volume of loans made. The impact of the loan guarantee in encouraging banks to move in the direction of term loans to small business and the managerial assistance given to loan applicants have been positive steps toward making financing more readily available to small business.

APPENDIX

APPENDIX TABLE 1.—*Business loans authorized by RFC and Federal Reserve banks, 1934–41* [1]

[Amounts in millions of dollars]

Year	RFC		Federal Reserve banks	
	Number	Amount	Number	Amount
1934	751	50.1	984	49.6
1935	1,171	83.0	1,009	74.8
1936	607	47.0	287	15.3
1937	301	20.0	126	11.1
1938	4,407	15.0	247	24.0
1939	1,645	119.0	128	13.2
1940	980	86.0	127	24.2
1941	665	208.1	294	67.3
Total	10,527	765.0	3,202	280.0

[1] Direct loans, participations, and commitments.

Sources: Reconstruction Finance Corporation, Quarterly Reports, and data submitted by U. S. Treasury. U. S. Congress. Senate. Subcommittee of the Committee on Banking and Currency, Hearings, Credit Needs of Small Business, 85th Cong., 1st sess., June 3-20, 1957, p. 230.

APPENDIX TABLE 2.—*Business loans and loan guaranties of Federal agencies, by agency, 1942–53* [1]

[Amounts in millions of dollars]

Calendar year	RFC		SWPC		VA		Regulation V loans		Federal Reserve banks	
	Number	Amount	Number	Amount	Number	Amount	Number	Amount	Number	Amount
1942	6,687	825.4	36	3.5			2,665	2,688	221	129
1943	3,336	463.3	797	44.5			2,682	3,874	48	83
1944	1,533	371.9	1,508	185.4	3,313	11.2	2,087	2,748	18	34
1945	[2] 749	179.1	2,145	231.1			1,223	1,029	22	19
1946	[3] 10,127	[4] 464.0			44,764	124.9	14	5	31	21
1947	[3] 10,589	435.5			37,534	126.0			32	21
1948	[3] 4,725	275.0			16,596	58.5			33	29
1949	[3] 3,509	388.5			12,695	32.3			42	14
1950	[3] 5,506	593.6			11,699	32.3			49	32
1951	[3] 2,702	301.3			42,491	40.0	854	1,395	38	60
1952	[3] 777	329.5			30,638	111.8	305	729	17	56
1953	[3] 1,048	221.3			11,257	29.5	135	234	12	37
Total	51,288	4,848.4	4,486	[5] 465.0	210,986	566.5	9,965	[6] 12,702	563	535

[1] Direct loans, participations, guaranties, and commitments.
[2] Total for January to June to provide for transition from calendar to fiscal year.
[3] Fiscal year total.
[4] Estimated.
[5] Yearly volume includes only SWPC share of authorization. Total amount reported differs from that in table 1 which was based on an official report that provided no data on annual volume.
[6] Includes all of first and part of second program.

Sources: RFC data from RFC, annual reports and U. S. Treasury. VA data from Veterans' Administration, Loan Guaranty (December issues) and Supplement (1946–50). SWPC from Donald R. Fuller, Government Financing of Private Enterprise (Stanford University Press, 1948). V-loan data, Susan S. Burr and Elizabeth B. Sette, A Statistical Study of Regulation V Loans (Board of Governors of the Federal Reserve System, 1950), p. 14, and Federal Reserve bulletins. Federal Reserve bank data from Federal Reserve bulletins.

APPENDIX TABLE 2.—*Business loans and loan guaranties of Federal agencies, by agency, 1954–57* [1]

[Amounts in millions of dollars]

Calendar year	SBA [2]		VA		Federal Reserve banks		V-loans		Fisheries loans (Department of Interior)	
	Number	Amount	Number	Amount	Number	Amount	Number	Amount	Number	Amount
1954	606	35	7,157	21	6	15	73	142	.....	.....
1955	1,039	49	5,998	22	7	9	44	75	.....	.....
1956	1,915	82	3,910	16	4	6	57	186	.....	.....
1957	3,536	159	3,156	13	4	7	32	127	174	5
Total	[3] 8,597	[3] 398	20,221	72	21	36	206	530	174	5

[1] Direct loans, participations, guaranties and commitments.
[2] SBA data are for years ending June 30.
[3] Totals include 1,501 loan approvals aggregating $73 million for the first half of fiscal year 1958 (July to December 1957).

Sources: SBA data from Small Business Administration, semiannual reports. Fisheries loans, from Department of Interior. For other programs, see appendix table 2.

13. SECURITY FINANCING OF SMALL BUSINESS[1]

INTRODUCTION

This study is concerned with the cost and volume of small-business financing through securities. It also considers the effects of regulation of the sale of new security issues by the Securities and Exchange Commission, and in particular the effects on the costs of issuing securities.

We first consider the general provisions of Federal regulation under the Securities Act of 1933 and the extent to which certain types of securities or transactions are wholly or partially exempt from regulation. Next, the general structure of the capital market is outlined with special reference to security financing of small business. Data on the cost of issuing new securities are then analyzed in some detail with special reference to the relative costs of large and small issues, and factors affecting such costs.

It should, perhaps, be emphasized at the outset that the term "small," as used in this study, is relative in the sense that it refers to the smaller corporations that use the capital markets. These are likely to be the larger of the corporations included in definitions of small business. Moreover, since many small businesses are unincorporated, and financing through the public sale of securities is largely limited to corporations, a large part of the small-business sector is automatically excluded from security financing.

In this paper, we are concerned only with the direct cost of long-term financing through security issues. Other factors beside cost affect the extent of small-business financing through this channel; these are covered for the most part in other studies.

FEDERAL REGULATION OF SECURITY ISSUES

The purpose of the Securities Act of 1933 is to protect the investor through the disclosure of pertinent facts. In accordance with this purpose, the Securities and Exchange Commission does not attempt to pass judgment on the investment merit of a new security issue, but tries only to make sure that all relevant facts concerning it are disclosed. The act requires that the issuer of a new security, with certain prescribed information, that the securities be offered for sale only after the registration statement becomes effective, and that any offer to sell be accompanied or preceded by a prospectus which contains in condensed form much the same information as the registration

[1] By Richard C. Pickering, Board of Governors of the Federal Reserve System, with the assistance of Margaret V. Hastings, Board of Governors of the Federal Reserve System.

Richard C. Pickering holds degrees of bachelor of arts, Indiana University, 1948, and master of arts, Columbia University, 1949. Experience: Research assistant, Board of Governors of the Federal Reserve System, 1949–50; research associate, finance project, major committee on management survey, New York City, 1950–52; and economist, Capital Markets Section, Board of Governors of the Federal Reserve System, 1953. Professional associations: AEA, AFA, ASA, and NTA. Publications and research in area of small business: None.

statement. The registration statement becomes effective 20 days after it has been filed, but the Securities and Exchange Commission has the power to prevent sale after that time if the information filed with it is inaccurate or incomplete.[2]

Certain types of securities or transactions are exempt from the requirements of the Securities Act of 1933. Some of these have little relevance as far as this paper is concerned; a number, however, are of considerable importance to small business issuers.

The act gives the Sucrities and Exchange Commission discretionary authority to exempt small security issues from full registration. The issuer, however, must file a statement of notification with the Commission supplying basic information about the company, specified exhibits, and an offering circular to be used in soliciting purchases. This filing requires less detail than a full registration statement and becomes effective after 10 days.

Initially, the exemption was granted only to issues up to $100,000. In 1945 the authority was modified to exempt offerings of a company of up to $300,000 (including underwriters' compensation) in any one year on the grounds that the smaller expense of providing less detailed and certified information would assist small business in obtaining funds.

Another exemption which could be of some importance to small business is that for intrastate offerings. A new issue sold only to the residents of a particular State is subject only to regulations of that State.

Direct placements, that is, issues sold to a relatively small number of investors, are not subject to registration requirements because they are considered public offerings. This exemption is also justified on the grounds that the investors involved, principally large financial institutions, are sufficiently sophisticated to obtain the necessary information themselves.[3]

THE CAPITAL MARKETS AND SMALL ISSUES

The terms of the legislation requiring registration and regulation of new security offerings are only one factor affecting the volume and cost of security flotation. Another factor is the structure of the market mechanism through which they are sold.

Debt versus equity securities

There are 2 more or less distinct markets for corporate securities, 1 for debt instruments and 1 for equities.

The demand side of the market for debt instruments has been dominated for some years by large institutional investors, such as life-insurance companies, corporate and State and local government pension funds, and mutual savings banks.[4] For such investors the

[2] The Commission also has the power to accelerate the effective date, and in fiscal year 1956 about one-third of registrations were made effective before the end of 20 days. U. S. Securities and Exchange Commission, 22d Annual Report, 1956.

[3] Of all security issues sold in 1955, 34 percent were privately placed; bonds, notes, and debentures accounted for 95 percent of these private placements. Eighty-five percent, by amount, of such bonds, notes, and debentures were purchased by life-insurance companies.

[4] During the 3 years 1954–56 net new issues of corporate bonds, notes, and debentures (i. e., gross new issues sold less retirement of securities outstanding, excluding investment company issues) amounted to $13.2 billion. Net acquisitions of debt securities by these 3 types of institutional investors accounted for nearly 90 percent of this total. Data from unpublished worksheets, Division of Research and Statistics, Board of Governors of the Federal Reserve System.

pressure of a continuing large inflow of funds establishes a premium on investment opportunities which afford possibility of placing a large block of funds in each transaction. Security offerings with investment opportunities of this type are, of course, limited to large businesses. Moreover, the administrative organization of these large institutional investors typically makes it difficult or impossible for their investing officers to acquire detailed knowledge of the operating efficiency of small businesses in many parts of the country.

Domination of the market for new debt issues by large institutional investors and the fact that they are neither particularly interested nor equipped to purchase the size of issue offered by small businesses of a local nature are important factors affecting the cost and availability of funds for small businesses.

The market for equities is considerably different in character. Since many of the major types of financial institutions are either limited in or prohibited from ownership of equity issues, the demand side of this market is much less highly concentrated than that for debt securities. Equity issues are sold to a wider range of institutions and individuals, many of which invest in relatively small amounts.[5] Because of the larger number of investors to be approached, as well as the greater underwriting risk in distributing equity securities, the cost of flotation of a common-stock issue is likely to be much larger than that for a bond issue.

Registered versus exempt security offerings

During the years 1951–57, registered securities accounted for 48 to 63 percent of the gross proceeds of new corporate security sales. Private placements were by far the most important category of exempt securities, amounting to 31 to 44 percent of annual sales during this period. Railroad securities, subject to Interstate Commerce Commission jurisdiction and consisting mostly of equipment trust certificates, accounted for 3 to 5 percent, small issues for 1 to 3 percent, and other exempt issues for 1 to 3 percent of annual proceds. The pertinent data are given in table 1.

[5] Net new stock issues (excluding investment company issues) during the period 1954–56 amounted to $6.6 billion. The three large institutional investors increased their stock holdings by only about one-half this amount. Personal trust funds are important investors in equities, but data on net acquisitions of these funds are not available.

TABLE 1.—*Percentage distribution of new corporate securities offered for cash sale in the United States, by type of offering, 1951–57* [1]

Year	All types	Registered	Not registered					Gross proceeds (in millions of dollars)[4]
			Total	Public offerings			Private placements	
				Railroad issues	Issues exempt because of size [2]	Other exempt offerings [3]		
1951	100	47.6	52.4	4.3	1.7	2.3	44.1	7,741
1952	100	50.4	49.6	5.0	1.8	.9	42.0	9,534
1953	100	56.2	43.8	3.3	1.8	1.3	37.3	8,898
1954	100	52.1	47.8	4.6	2.0	2.7	38.5	9,516
1955	100	56.2	43.9	5.2	2.6	2.0	34.0	10,240
1956	100	56.1	43.9	3.4	1.6	3.4	35.5	10,939
1957	100	63.1	36.9	2.7	.9	2.5	30.9	12,941

[1] Data cover new corporate issues in amounts over $100,000 and with term to maturity of more than 1 year. Corporate note issues sold exclusively to commercial banks and issues sold through continuous offering (e. g., issues of open-end investment companies) are excluded.

[2] The volume of small issues is understated because of the exclusion of issues of $100,000 or less in these statistics; this understatement is probably of minor importance, however. The only information available concerning regulation A issues sold in amounts of $100,000 or less is for issues of common stock filed in 1955 for which sales reports were made after approximately 6 months. Of the $118,000,000 filed, only $9,000,000 were for amounts of $100,000 or less, and only $5,000,000 of these were sold. (Section of Economic Research, report to the SEC, Sales Success of Small Security Issues, table 2.) On the other hand, the volume of small issues is overstated to the extent that sales of issues of $100,000 to $300,000 are unsuccessful. Of the $109,000,000 of issues of this size filed in 1955, only 54 percent had been sold approximately 6 months after filing.

[3] Principally bank-stock issues, but also includes intrastate offerings and a minor amount of other miscellaneous exempt issues. Intrastate issues are of little importance, amounting to only 0.2 percent of total offerings in 1955–57.

[4] Gross proceeds are derived by multiplying par amounts or number of units by the offering price. Gross proceeds exceed net proceeds (the sum available to the issuing company) by the cost of flotation.

Source: U. S. Securities and Exchange Commission, 23d Annual Report, 1957, and Statistical Bulletin, February 1958.

In terms of number of issues, however, those exempt because of size are much more important. For example, in 1955, regulation A issues accounted for about two-fifths of the total number of offerings, while registered issues and private placements each accounted for approximately one-fourth.[6]

All regulation A issues are, of course, small by definition, and many back-stock offerings are also small. Equipment-trust certificates are generally medium sized ($2 million to $10 million) and are sold principally by large railroads.

Chart 1 shows percentage distributions by size of issue and by asset size of issuer of registered public issues and private placements sold in 1951, 1953, and 1955.[7] Small issues and issues of small corporations were a much greater proportion of registered equity issues and private placements than of registered bond offerings.

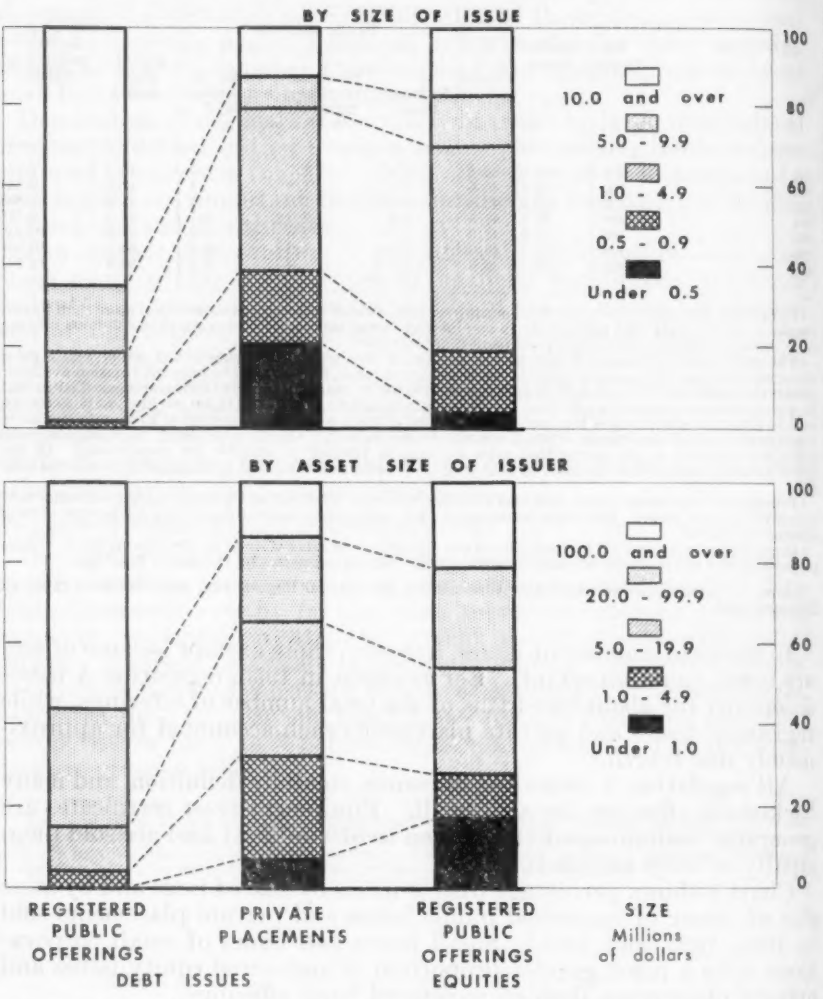
[6] Regulation A filings were unusually numerous in 1955, so their importance in these statistics is probably somewhat overstated.

[7] Data are derived from U. S. Securities and Exchange Commission, Section of Economic Research, Volume and Nature of Corporate Security Offerings, Supplemental Report to Cost of Flotation of Corporate Securities, July 1957, and include only those issues for which flotation-cost data are presented in this present study. In addition to issues excluded because of lack of cost information, registered public issues exclude offerings to security holders (rights offerings) and securities sold to the general public directly by the issuer (i. e., without underwriting), while private placements exclude a small number of equity issues. These exclusions probably have little effect on the percentage distributions.

Chart 1

NEW CORPORATE SECURITY ISSUES

Percentage distribution of number of issues



NOTE.—Issues offered during 1951, 1953, and 1955. For source and discussion of data, see text footnote 7.

NATURE OF FLOTATION COSTS

Three major types of cost determine the total direct cost to business of long-term financing through security issuance: compensation to investors, compensation to the underwriters, and other expenses.

Compensation to investors take the form of interest payments (after allowance for any premium or discount in the sale price) in the case of bonds, or the anticipated dividend (including capital gains) for stocks. Compensation to underwriters takes the form of a spread between the price at which underwriters purchase a security issue and the price at which they sell the issue to investors in "firm com-

mitment" underwriting; in "best efforts" underwriting, it is usually a fee based on the number of units actually sold; and for private placements it is an agents', or finders', fee based on the size of issue.[8]

"Other expenses" are expenses other than compensation to investors and underwriters paid by the issuing company, and are of three principal types: those entirely attributable to SEC regulation, those attributable in part to regulation, and those unrelated to regulation.

The only expense which can be attributed clearly and exclusively to regulation is the SEC registration fee, which is set by law at one one-hundredth of 1 percent of the proposed aggregate offering price, with a minimum of $25. Costs which may be said to be partly affected by regulation, because of the disclosure and certification requirements of the Commission, include printing and engraving, legal, accounting, engineering, and other expenses. Costs unrelated to SEC regulation are stock-exchange listing fees, the Federal documentary tax, State taxes and qualification fees, and trustees' and transfer agents' fees.

We are primarily concerned with the cost of registered security issues offered to the general public through investment bankers. This is the most important method of offering, as well as the method for which the most detailed and reliable cost data are available. There is also a brief discussion of the flotation costs of registered common-stock offerings to existing security holders, of private placements, and of exempt public offerings, but these data are somewhat less adequate.

The data on flotation costs presented in this study are largely based on the latest SEC survey of flotation costs, which covers the initial costs of flotation only—i. e., compensation to underwriters and other expenses.[9] It does not cover compensation to the investor; in other words, it does not measure the total cost of long-term financing over the life of the issue as defined above.

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[8] For registered security issues offered to the general public, the usual procedure is for the underwriter to make a "firm commitment" to purchase an entire issue at a specified price. The underwriter assumes the risk of being able to sell the securities to ultimate investors, or other security dealers, at a sufficiently higher price than was paid for them to make the transaction profitable. To the extent that the underwriter is unable to sell the securities at the price anticipated and reduces the price in order to distribute the securities, the compensation to the underwriter is reduced and the compensation to investors correspondingly increased. The compensation to underwriters is reported gross, i. e., it is the total out of which the underwriters must pay any selling costs and other expenses incident to marketing the issue.

Offerings to the general public are also made on a "best efforts" basis, in which the investment banker does not buy the entire issue, but acts as agent for the company in selling the securities. This type of contract is usually used when the issuing company is not well established and investment bankers are not willing to assume the risk of distribution, and is most frequently used for regulation A offerings. If a security issue is first offered to existing stockholders through "rights" to purchase the issue in some proportion to their existing holdings, the underwriting contract differs somewhat. See page 13–29.

There is no underwriting cost, per se, in a private placement, but a fee is frequently paid investment bankers for assistance in placing an issue.

[9] U. S. Securities and Exchange Commission, Cost of Flotation of Corporate Securities, 1951–55, June 1957. A list of earlier studies made by the Commission is given in this report. The latest SEC study of flotation costs covers security issues sold for cash during 1951, 1953, and 1955. In relation to all issues offered during these years it includes data for about 70 percent of both the number and the volume of debt issues, and 40 percent of the number and 45 percent of the volume of equity issues. The principal exclusions are public offerings made directly by the issuer, rights offerings made in 1951 and 1953, regulation A offerings, investment company offerings, and issues omitted for technical reasons—e. g., combined stock and bond offerings. Analysis of flotation costs and the various factors affecting them refers primarily to averages for issues sold during the 3 years 1951, 1953, and 1955. Because of the large number of variables affecting costs, data for any one year do not provide a sufficient number of observations for the cross-classification needed for detailed analysis. Moreover, comparison of data for the individual years indicates that, despite the somewhat diverse capital market conditions, flotation costs were quite similar for each year when the various factors affecting cost, other than time, were kept constant.

Since compensation to investors is a very important part of total cost to an issuing company, the relative importance of initial flotation cost in the total cost of long-term financing is small, even for small borrowers. A simple calculation illustrates this. Assume 2 bond issues, each with a term of 20 years and 3½ percent coupon, 1 for $750,000 and 1 for $50 million. The total cost of long-term financing for each issue would be the sum of the cost of flotation plus interest payments over the life of the issue. On the basis of average flotation costs for registered bond issues of $0.5 to $0.9 million offered to the general public, total dollar financing cost over the 20-year period for the $750,000 issue would be $611,000, of which 86 percent is interest payments, 9 percent compensation to underwriters and 5 percent other expenses of flotation. On the basis of flotation costs for issues of $50 million or more, the total financing costof the $50 million issue would be $36 million, of which 98 percent represents interest payments, 1 percent compensation to underwriters, and less than 1 percent other expenses. Thus initial cost of flotation is a considerably larger part of total financing cost for the small than for the large issue. However, it is a relatively small part of the total cost of long-term financing even for the small issue.

This illustration assumes the same interest rate for the small and the large issue. If the interest rate were higher on the small issue, as would be likely, the relative importance of flotation costs would be reduced.

REGISTERED SECURITIES OFFERED THROUGH INVESTMENT BANKERS

It appears that differences in flotation costs may be attributed to four major, but interrelated, factors: type of security, industry of issuer, size of issue and asset size of issuer, and underwriting risk. The discussion here will be focused on size of issue, with reference to the other factors.[10]

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[10] Size of issue will be considered both as one of the principal variables and as representative of asset size of issuer. In general there is a close positive correlation between size of stock and asset size of issuer (somewhat closer for bonds than stocks)—i. e., their effect on cost is in the same direction. Any significant difference that would result from substituting asset size for issue size is indicated, however.

Data on flotation cost classified by size of issue and asset size of issuer indicate, to the extent that the two variables are imperfectly correlated, that : (*a*) Compensation to underwriters (as a percentage of gross proceeds) is more affected by asset size of issuer than by size of issue. This is particularly true for smaller issues of smaller companies: compensation for large issues of large companies does not vary significantly regardless of small changes in size of issue and asset size of issuer. Asset size of issuer is a somewhat more important variable for stocks than bonds. (*b*) On the other hand, other expenses are closely related to size of issue but relatively unrelated to asset size of issuer.

Size of issue

Classification of flotation costs by size and type of issue indicates two facts of importance to small business: first, almost without exception the smaller the issue the greater was the proportion of gross proceeds required for flotation costs and, second, with the single exception of bonds and preferred stocks in the $1.0–$1.9 million size class, the cost of flotation was greater for preferred stocks than for bonds and for common stocks than for preferred stocks.[11] (See chart 2.)

The relative increase in flotation costs as size of issue decreased was greater for bonds than stocks. Average cost for the smallest bond issues (the smallest registered bond issues sold are still sizable issues) was about 10 times that for the largest bond issues, while similar costs for common stocks were only about 5 times greater.[12]

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[11] If issues were classified by asset size of issuer rather than size of issue, the cost of common stock financing would be somewhat closer to that of preferred stocks. This is because the correlation between issue size and asset size is somewhat poorer for common stocks (particularly of mining companies) than for preferred stocks and bonds, with small concerns offering some fairly large issues.

[12] In general, average costs cited are arithmetic means derived by dividing aggregate cost by aggregate gross proceeds of issues falling within a given cell

Chart 2

COMPARISON WITHIN INDUSTRY - ISSUER GROUPS OF COST OF FLOTATION OF REGISTERED SECURITIES BY TYPE AND SIZE OF ISSUE

NOTE.—Average cost of registered securities offered to the general public through investment bankers in 1951, 1953, and 1955.

Source: U. S. Securities and Exchange Commission. Cost of Flotation of Corporate Securities, 1951–55, June 1957.

For the smallest size class for which data are available for both stocks and bonds ($500,000 to $900,000) the cost of a common stock issue was less than twice that of a bond issue, while for the largest size class ($20–$49 million) it was four times that for bonds. (The spread between costs of stock and bond financing, in terms of gross proceeds, was greater for small than large issues, 10 and 4 percentage points, respectively.) To the extent that the form of long-term security financing is influenced by relative cost of flotation, smaller companies selling small issues would have less incentive to finance with fixed-income securities than would large companies. This may account, in some part, for greater reliance on equity financing by smaller corporations than by larger ones.

Not only is the cost of common-stock financing substantially higher than that of bond financing when average cost for all industries is considered, but the differential persists when issues are further classified by the major industrial categories for which sufficient data are available, as shown in chart 2. The differential is not quite as large, however, since the average for all industries is influenced by the very high flotation cost for stock issues of mining companies.

The uniformly higher flotation cost for publicly offered common stock than for debt issues is undoubtedly due partly to the greater underwriting risk involved in stock than in bond offerings and the higher distribution costs for stock than for bond issues resulting from the greater institutionalization of the latter market. This differential cost is of considerable significance in small-business financing for such businesses are likely to need equity rather than debt capital. Moreover, with a public capital-market structure which often precludes low-cost debt financing for smaller companies, the higher cost equity issues may be the only available means of obtaining new funds through this market.

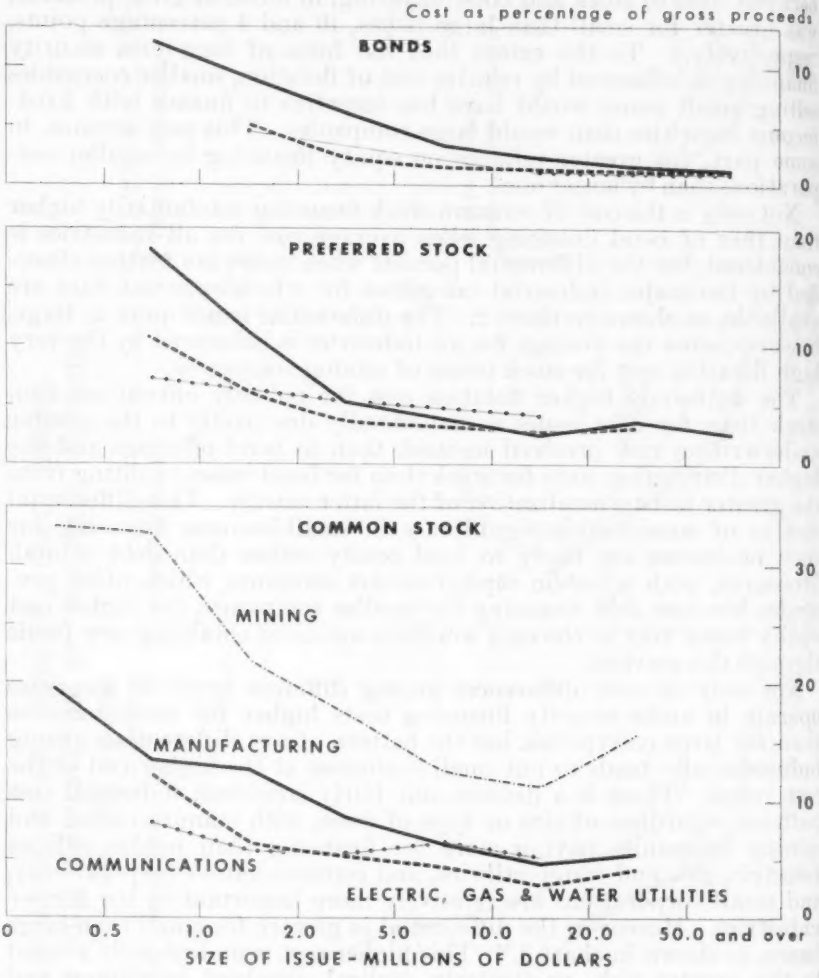
Not only do cost differences among different types of securities operate to make security financing costs higher for small business than for large enterprises, but the pattern of cost differentials among industries also tends to put small businesses at the higher end of the cost range. There is a definite and fairly consistent industrial cost pattern, regardless of size or type of issue, with manufacturing and mining companies paying more for financing than public utilities (electric, gas, and water utilities, and communication corporations), and small corporations are relatively more important in the former industries. Moreover, the differential is greater for small than large issues, as shown in chart 3.[13] This higher cost is undoubtedly related to the greater risk, particularly cyclical, involved in mining and manufacturing company operations.

[13] If common stock issues were classified by asset size of issuer rather than issue size, flotation costs would not be as consistently, or as much, higher for mining concerns than for other industries because small mining concerns frequently offer fairly large stock issues.

13-18 Chart 3

COMPARISON WITHIN TYPE OF ISSUE GROUPS OF COST OF FLOTATION OF REGISTERED SECURITIES

BY INDUSTRY - ISSUER GROUP AND SIZE OF ISSUE



NOTE.—For description and source of data see subscript of chart 2.

To summarize, the cost of flotation for registered securities offered to the general public through investment bankers was greater for small than large issues, regardless of type of issue or industry or issuer, although relatively less so for stock than for bond issues and for securities of public utilities than of other industries. The cost of equity financing was considerably greater than the cost of debt financing for all sizes of issues and for all major types of industry. The cost of new issues was greater for manufacturing and mining concerns than for public utilities, for all sizes and types of issues, but more so for small than for large issues.

Structure of flotation costs

The discussion to this point has been for the most part in terms of total cost of flotation, i. e., the sum of compensation to underwriters and other expenses. It is useful, however, to consider these components separately.

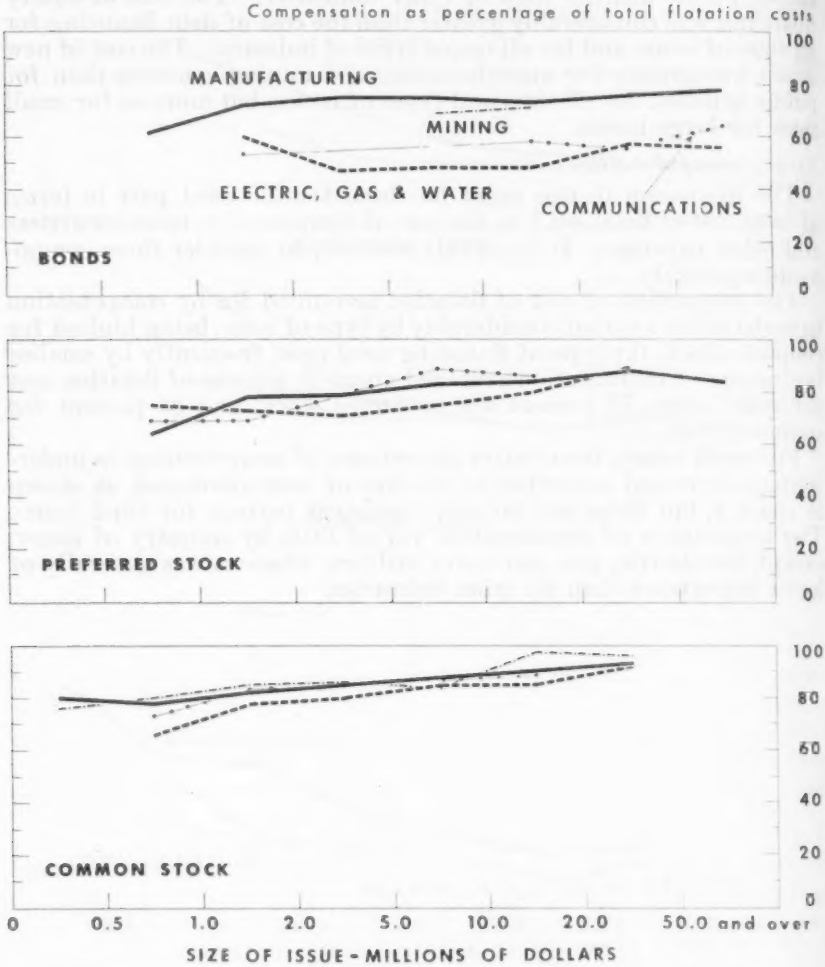
The proportion of cost of flotation accounted for by compensation to underwriters varied considerably by type of issue, being highest for common stock, the type of financing used most frequently by smaller businesses. Compensation averaged about 55 percent of flotation cost for debt issues, 75 percent for preferred stock, and 85 percent for common stock.

For stock issues, the relative importance of compensation to underwriters decreased somewhat as the size of issue decreased, as shown in chart 4, but there was no very consistent pattern for bond issues. The importance of compensation varied little by industry of issuer, except for electric, gas, and water utilities, where it was generally of lesser importance than for other industries.

13-20 Chart 4

COMPENSATION TO UNDERWRITERS FOR SELLING REGISTERED SECURITIES

BY INDUSTRY - ISSUER GROUP AND SIZE OF ISSUE



NOTE.—For description and source of data see subscript of chart 2.

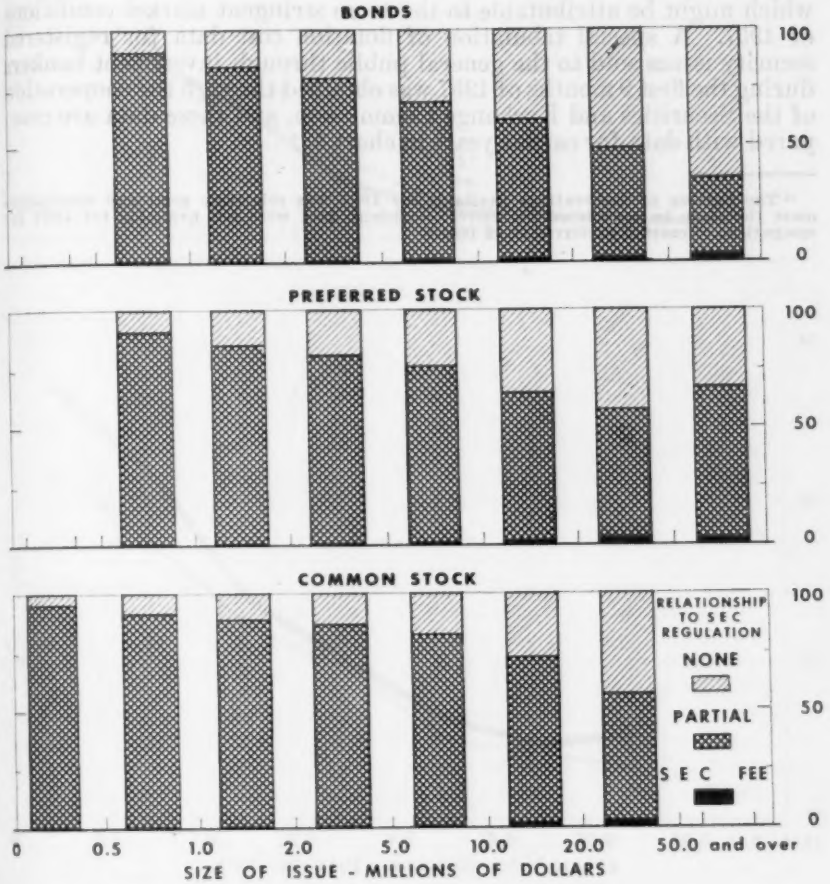
"Other expenses" were a larger percentage of cost of flotation for bonds than for stock. As issue size decreased the relative importance of other expenses increased slightly, except for bonds. Of the principal components of other expenses, the SEC registration fee is the smallest. It is fixed relative to gross proceeds, with a small minimum, and therefore was practically the same percentage of gross proceeds regardless of type or size of issue. In relation to total other expenses, however, it was somewhat greater for bonds than stocks and decreased as the size of issue decreased, as shown in chart 5.

13-22 Chart 5

MAJOR COMPONENTS OF "OTHER EXPENSES" IN FLOTATION COSTS OF REGISTERED SECURITIES

BY TYPE AND SIZE OF ISSUE

Percentage distribution of total "other expenses"



NOTE.—For description and source of data see subscript of chart 2.

Those expenses which are partly affected by SEC regulation were smaller, relative to both gross proceeds and all expenses, for bonds than for stocks. For all types of securities, they increased in importance as the size of issue decreased since such expenses are relatively fixed—that is, not related to size of issue. On the other hand, expenses not related to SEC regulation showed the opposite tendency, since many of these are a function of issue size. Thus, expenses at least partly induced by governmental regulation were of greater importance for small than for large issues.

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Flotation costs in 1957

Flotation costs in 1951, 1953, and 1955 related to periods of somewhat diverse capital market conditions. The capital markets were not under pressure to the extent that they were in 1957, however, when demands for long-term funds were very large, and credit and monetary policy was holding credit expansion under much greater restraint. For this reason it seemed desirable to compare flotation costs in 1957 with those in the earlier years, in order to ascertain any cost differences which might be attributable to the more stringent market conditions of 1957. A special tabulation of flotation cost data for registered security issues sold to the general public through investment bankers during the first 9 months of 1957 was obtained through the cooperation of the Securities and Exchange Commission, and these data are compared with data for earlier years in chart 6.[14]

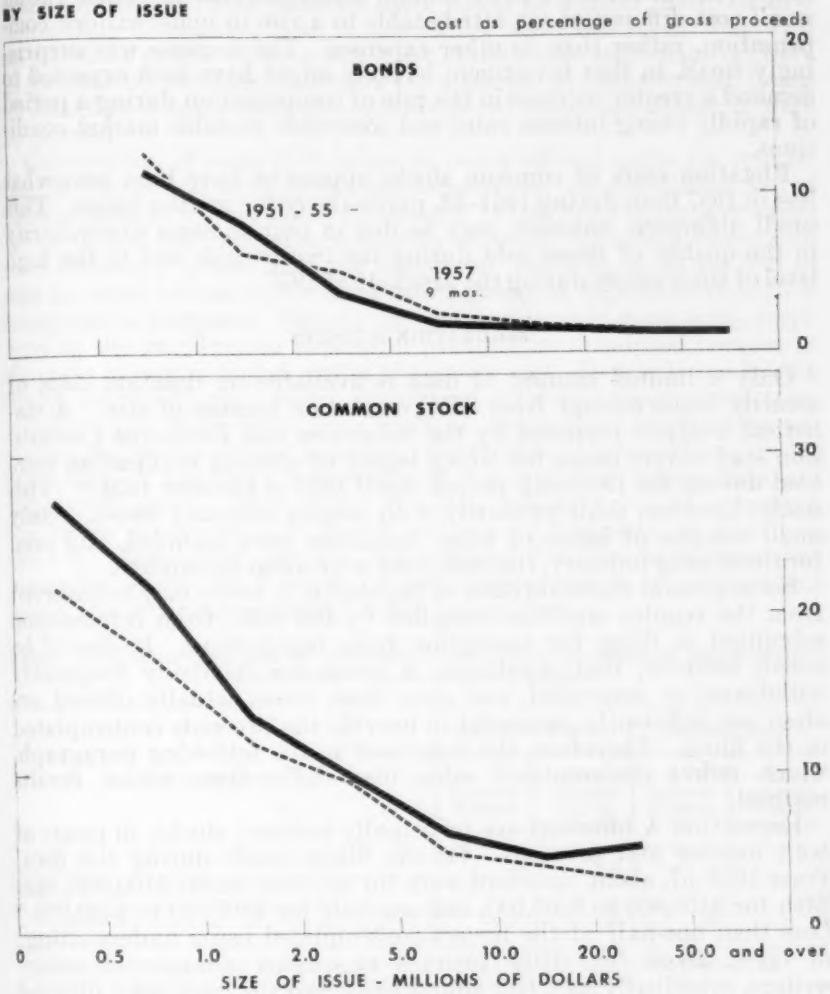
[14] The number of observations available for 1957 was relatively smal and conclusions must therefore be considered tentative. Sufficient data were not available for 1957 for comparison of costs of preferred stock issues.

13-24

Chart 6

COST OF FLOTATION OF REGISTERED SECURITIES, 1957 AND EARLIER YEARS

BY SIZE OF ISSUE



Source: U. S. Securities and Exchange Commission.

Cost of flotation of debt issues, for issues of similar size, type, and industry, was generally slightly higher in 1957 than in the earlier period. This was particularly the case for small and medium-size issues (except for the 1 to 1.9 million dollar size class). These rather small cost differences are attributable to a rise in underwriters' compensation, rather than in other expenses. The increase was surprisingly small, in that investment bankers might have been expected to demand a greater increase in the rate of compensation during a period of rapidly rising interest rates and somewhat unstable market conditions.

Flotation costs of common stocks appear to have been somewhat less in 1957 than during 1951–55, particularly for smaller issues. This small difference, however, may be due in part to some dissimilarity in the quality of issues sold during the two periods and to the high level of stock prices during the first half of 1957.

REGULATION A ISSUES

Only a limited amount of data is available on flotation costs of security issues exempt from SEC regulation because of size. A statistical analysis prepared by the Securities and Exchange Commission staff covers issues for which letters of offering notification were filed during the 19-month period April 1953 to October 1954.[15] This study, however, dealt primarily with mining company issues. Only small samples of issues of other industries were included, and even for the mining industry, the basic data were often incomplete.

Some general characteristics of regulation A issues may be inferred from the regular statistics compiled by the SEC from information submitted in filing for exemption from registration. It should be noted, however, that regulation A issues are relatively frequently withdrawn or suspended, and even those issues actually offered are often not sufficiently successful to provide the proceeds contemplated in the filing. Therefore, the data used in the following paragraph, which reflect contemplated sales, may differ from actual results realized.

Regulation A offerings are principally common stocks, in terms of both number and proceeds. Of the filings made during the fiscal years 1955–57, about one-third were for amounts under $100,000, one-fifth for $100,000 to $200,000, and one-half for $200,000 to $300,000.[16] Less than one-half of the issuers contemplated using underwriting; of these, about four-fifths planned to employ commercial underwriters, principally on a best efforts basis, and the remainder planned to have the issue underwritten by officers and directors of the company, who were not regularly engaged in the security business. A relatively large proportion of regulation A filings were made by new companies, that is, companies which had been in existence less than 1 year at time of filing.

Of the 358 mining issues (principally uranium mining and excluding oil and gas) filed in the period April 1953 to October 1955, reports on sales for a long enough period to judge the success of the offering were made for only 100 issues. Of these three-fifths were considered

[15] U. S. Securities and Exchange Commission, Section of Financial Analysis, Division of Trading and Exchanges, A Statistical Analysis of Mining Issues Filed Under Regulation A, April 1953 to October 1954, May 27, 1955. (Mimeographed.)
[16] Securities and Exchange Commission, 23d Annual Report, 1957.

successful, that is, 85 percent or more of the proposed offering was sold. Flotation costs on these issues, nearly all of which were underwritten on a best efforts basis, averaged 26 percent.[17] Flotation costs for underwritten common stock issues of a small group of new nonmining companies, that is, companies less than a year old with no previous public offering and also offered under regulation A, were 21 percent of proceeds, and costs for a sample of underwritten issues of established nonmining companies offered under regulation A were 10 percent.

Comparison of costs of flotation of issues offered under the regulation A exemption with issues registered under the Securities Act of 1933 is difficult for a number of reasons. First, the existence of regulation A has contributed to a scarcity of small registered issues, and it is necessary to use data for registered issues up to $1 million in size in order to assemble even a small group of registered issues for comparative purposes. Second, in comprising only those costs pertinent to the registration process, a problem is introduced because in the case of regulation A issues the entire cost often is borne by the dealer or underwriter and a separation between underwriting commissions and other costs, such as legal, accounting, engineering expenses, etc., is not always possible. Furthermore, issues offered under regulation A are more frequently of a speculative nature than are registered issues. This factor is partly adjusted for by grouping the issues according to industry and age of company, as shown in table 2. These data indicate that costs of flotation were somewhat lower for regulation A issues; if data were available on unsuccessful issues, the difference probably would be modified.

TABLE 2.—*Cost of flotation of common stocks—Selected types of underwritten regulation A and registered issues*

Type of issue	Regulation A issues [1]		Registered issues [2]	
	Number of issues	Cost (percent of gross proceeds)	Number of issues	Cost (percent of gross proceeds)
Extractive	59	26	26	33
Nonmining:				
New	7	21	5	23
Established	17	10	25	13

[1] Actual costs for regulation A issues successfully sold during the period April 1953 to October 1954.
[2] Proposed costs of flotation for issues under $1,000,000 registered in 1951, 1953, and 1955.

Source: U. S. Securities and Exchange Commission.

OTHER TYPES OF OFFERINGS

Common stock rights offerings

Data on registered common-stock issues offered through rights with underwriting are available only for 1955. In general they show the same issue-size and industrial-cost differences as do data on issues offered to the general public. Cost of flotation for rights issues was considerably smaller than for offerings to the general public regardless of size of issue. However, the spread increased as size of issue de-

[17] Exclusive of any bonus stock, options, etc., which are almost impossible to value.

creased; flotation costs for smaller issues were more than three times higher for public than for rights offerings, while costs of large issues were less than two times greater. This larger differential for small issues, however, reflects in part the greater relative importance of small mining issues in general public than in rights offerings.

Most of the total cost difference, as shown in chart 7, was accounted for by lower compensation to underwriters for rights than for public offerings.[18] Other expenses were lower for small rights offerings than for small public issues but were higher for large rights issues. Among other individual expense items the only significant difference between those on rights and general public offerings was the considerably higher transfer agents' fees for rights offerings which reflected the additional work of this nature involved in this type of offering.

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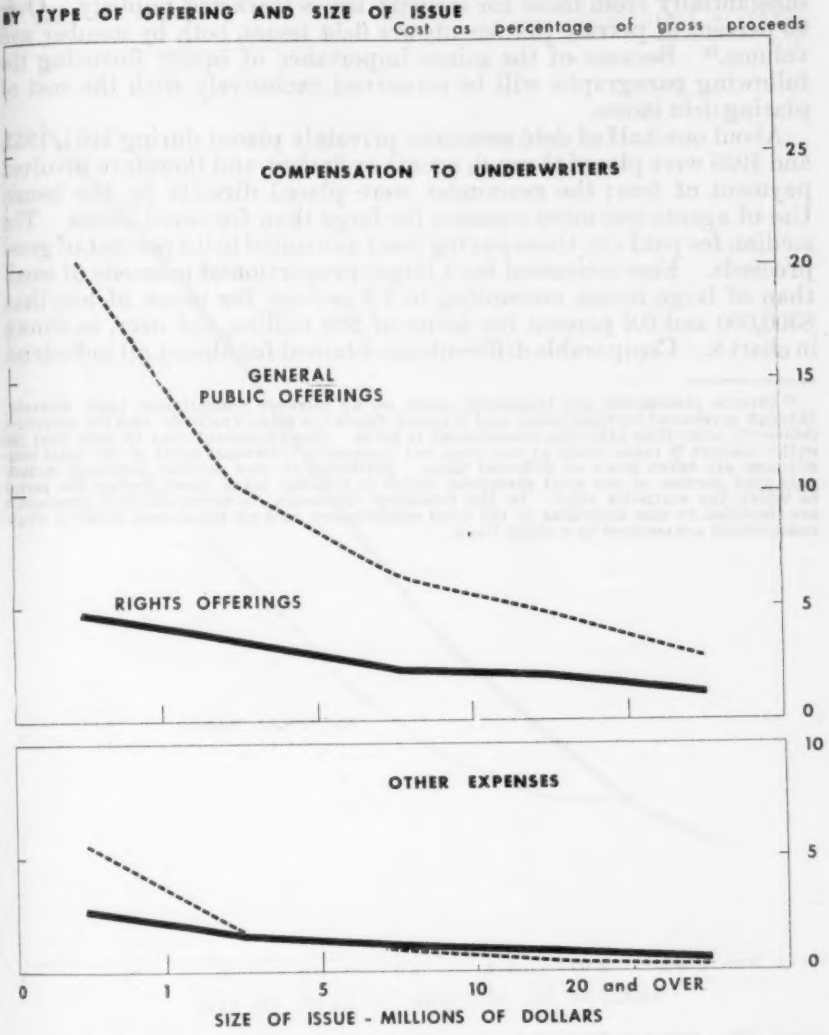
[18] A difference in the type of underwriting involved between rights and general public offerings accounts for part of the difference in compensation. There are two types of underwriting contracts for rights offerings. One, the most frequently used for registered issues, is a standby agreement, whereby the underwriters agree to purchase any securities unsubscribed at the close of the subscription period and are paid a standby commission based on the total number of shares originally offered. Frequently, the underwriters actively participate in the purchase of rights from selling stockholders, exercising these rights, and selling the stock during the subscription period, in which case additional compensation may be paid.

Rights offerings may also be made through a form of best-efforts underwriting whereby the investment banker assists the issuer in the details of the offering and solicits subscriptions from security holders, receiving compensation on the basis of the subscriptions thus obtained.

13-30 Chart 7

COST OF FLOTATION OF REGISTERED COMMON STOCKS

BY TYPE OF OFFERING AND SIZE OF ISSUE



NOTE.—Average cost for securities offered through investment bankers during 1955.
Source: Same as for chart 2.

Private placements

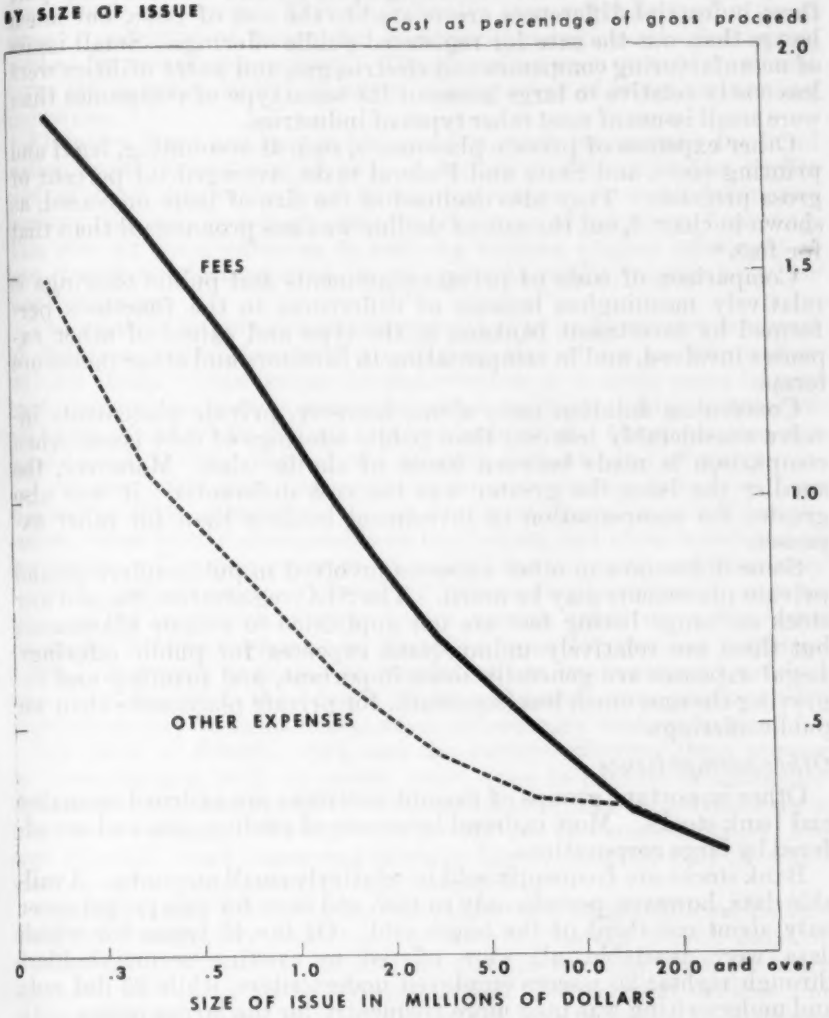
The structure and level of costs of private placement financing differ substantially from those for security issues marketed publicly. Over 90 percent of private placements are debt issues, both by number and volume.[19] Because of the minor importance of equity financing the following paragraphs will be concerned exclusively with the cost of placing debt issues.

About one-half of debt securities privately placed during 1951, 1953, and 1955 were placed through agents or finders, and therefore involved payment of fees; the remainder were placed directly by the issuer. Use of agents was more common for large than for small issues. The median fee paid (by those paying fees) amounted to 0.8 percent of gross proceeds. Fees accounted for a larger proportion of proceeds of small than of large issues, amounting to 1.9 percent for issues of less than $300,000 and 0.2 percent for issues of $20 million and over, as shown in chart 8. Comparable differentials obtained for almost all industries.

[19] Private placements are frequently made on an advance commitment basis whereby, through agreement between issuer and investor, funds are made available, and the securities delivered, some time after the commitment is made. The agreement may be such that the entire amount is taken down at one time, but frequently fractional parts of the total commitment are taken down at different times. Statistics on new security offerings include only that portion of the total placement which is actually taken down during the period to which the statistics refer. In the following discussion, however, private placements are classified by size according to the total commitment, and all takedowns under a single commitment are counted as a single issue.

Chart 8

COST OF PRIVATE PLACEMENT OF DEBT SECURITIES BY SIZE OF ISSUE



NOTE.—Average cost of securities privately placed in 1951, 1953, and 1955. For description of data, see text footnote 20.
Source: Same as for chart 2.

Agents' fees varied by industry as well as by size of issue. They were highest for communications and commercial and miscellaneous companies and lowest for electric, gas, and water utilities. In part these industrial differences are related to the size of issue, but much less so than was the case for registered public offerings. Small issues of manufacturing companies and electric, gas, and water utilities were less costly relative to large issues of the same type of companies than were small issues of most other types of industries.

Other expenses of private placements, such as accounting, legal and printing costs, and State and Federal taxes, averaged 0.4 percent of gross proceeds. They also declined as the size of issue increased, as shown in chart 8, but the rate of decline was less pronounced than that for fees.[20]

Comparison of costs of private placements and public offerings is relatively meaningless because of differences in the functions performed by investment bankers, in the type and extent of other expenses involved, and in compensation to investors and other indenture terms.

Concerning flotation costs alone, however, private placements involve considerably less cost than public offerings of debt issues when comparison is made between issues of similar size. Moreover, the smaller the issue the greater was the cost differential; it was also greater for compensation to investment bankers than for other expenses.

Some differences in other expenses involved in public offerings and private placements may be noted. The SEC registration fee and any stock exchange listing fees are not applicable to private placements but these are relatively unimportant expenses for public offerings. Legal expenses are generally more important, and printing and engraving charges much less important, for private placements than for public offerings.

Other exempt issues

Other important groups of exempt securities are railroad securities and bank stocks. Most railroad issues are of medium size and are offered by large corporations.

Bank stocks are frequently sold in relatively small amounts. Available data, however, pertain only to 1955 and even for this period cover only about one-third of the issues sold. Of the 45 issues for which data were available, all were offered to existing securityholders through rights; 20 issuers employed underwriters, while 25 did not; and underwriting was used more frequently for the larger issues.

Flotation costs were small; for underwritten issues the median cost was 1.6 percent. These costs of flotation for underwritten bank stocks varied little by size of issue and were well below costs for registered stock issues of other industries offered through rights, particularly for the smaller issues, since for registered issues cost increases as size of issue decreases. Median compensation to underwriters selling bank stocks was 1.4 percent, while expenses were 0.2 percent of proceeds. For bank stocks offered directly by the issuer, expenses were negligible, amounting to only 0.1 percent of gross proceeds.

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[20] Data in chart 8 concerning fees relate only to placements through agents, whereas the data on expenses relate to all placements for which expense data were available, regardless of whether fees were paid or not. Fees were paid on less than half as many issues as the total for which expense data were available.

SUMMARY

Cost of flotation is considerably greater for small security issues than for large issues. This is generally true regardless of type of issue or industry of issuer, for underwritten registered offerings as well as for private placements. The spread between costs of small and large issues varies widely, however, among types of issues and issuing industries.

Flotation costs are larger for common stock issues than for bond issues, regardless of size of issue or industry of issuer. The higher cost of stock financing is of particular concern to small businesses because they rely to a great extent on this type of long-term financing. The cost of stock offerings to security holders (rights offerings) is less than for offerings made to the general public, particularly for smaller issues.

The relative importance of compensation to underwriters as a part of flotation cost differs only slightly by size of issue. For underwritten issues compensation to underwriters is a much more important element in flotation cost than other expenses. This is true for all types of securities and all types of industries. Compensation is a considerably greater part of cost of stock than of bond offerings.

Expenses other than compensation to underwriters have been considered in three categories: Those wholly attributable to SEC regulation, those partly attributable to regulation, and those unrelated to regulation. The first category—the SEC fee—is small and relatively fixed in relation to size of issue. Expenses partly related to regulation are the largest category and they increase relatively as issue size decreases because they may be about the same for small as for large issues. Expenses unrelated to regulation are moderate, and are less important for small than for large issues because some are generally applicable only to large issues while others vary with issue size.

The level of flotation cots and the factors affecting them appear to have changed little in recent years, even in periods of markedly different capital market and credit conditions. The minor differences that were evident, however, were mostly for the smaller issues; the cost of small bond issues was slightly higher, and the cost of small stock issues slightly lower, in 1957 than earlier.

Cost of placing debt securities privately with large financial institutions is considerably less than the cost of floating a debt issue of similar size in the public market, but more so for small than for large issues. This is true for both compensation to investment bankers and other expenses. Lack of adequate data on compensation to investors and other indenture terms for both public offerings and private placements makes it impossible to ascertain the extent to which lower initial flotation costs for private placements are offset by higher interest rates or more restrictive terms.

Comparison of costs of flotation for exempt regulation A issues and for small registered issues is difficult because of differences in size and quality. When these factors are taken into consideration to the extent possible, available data indicate that flotation costs for successful regulation A issues are somewhat lower than for small registered issues. The regulation A data are fragmentary, however, in particular for nonmining issues, and further study of offerings, including unsuccessful and successful issues, will be necessary before firm conclusions can be drawn.

14. PUBLIC POLICIES AFFECTING SMALL BUSINESS[1]

INTRODUCTION

The background studies of part I are directed mainly toward a greater understanding of the availability of financing facilities to small business. The problem of financing, however, is only one of many confronting this sector of the economy. Even more fundamental are problems that grow out of the economic climate in which small concerns must operate, and public policies which, in part, determine that climate—policies on such matters as right of entry into business, monopoly and bigness, patents, trade practices, areas of special Government action, taxation, and regulation of security issues. References to Government policies recur throughout the studies, but only one, regulation of security issues, is dealt with at any length.[2]

This paper develops, briefly, the background of some of the more general public policies that influence the character of the market in which small business operates. Although such policies strongly affect the overall climate for small business, they cannot be discussed exclusively in terms of their influence on the smaller concerns, because they bear on all businesses in some measure and differ in influence from one market to another. A general approach has, therefore, been taken.

It should be noted that the climate for small business is also influenced by the policies of the several States. These differ in detail, sometimes markedly. In interstate commerce and, hence, for the national economy as a whole, however, the Federal jurisdiction is likely to be paramount. For this reason, as well as to achieve generality, only Federal policies are covered.

RIGHT OF ENTRY AND FREEDOM FROM RESTRAINT

In the industrial era that started with the Civil War, the policy followed earlier by the States, of permitting corporations to be formed under general incorporation acts as a means of insuring freedom of entry into business, became the instrument of building monopolies and near monopolies. In railroads, iron and steel, agricultural machinery, and sugar refining—to name only a few—the right and ability of corporations to grow, merge, and agree produced large aggregations of economic power against which smaller concerns could survive, if at all, only with great difficulty.

Agrarian States tried, in the granger laws, to limit this power, at least as exercised by railroad and grain-elevator companies. While

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[1] By Ramsay Wood, Board of Governors of the Federal Reserve System.
Ramsay Wood. Education: Master of arts, Teachers College, Columbia University, New York, 1936. Graduate work in department of economics, faculty of political science, Columbia University, New York, 1936–41. Economist in Division of Research and Statistics, Board of Governors of the Federal Reserve System, 1941 to date.

[2] Study 13 (Pickering) see p. 282.

successful, in part, they found, through court decisions, that there were rather definite limits to the regulation of economic power. Prices charged by businesses "affected with the public interest" could be regulated, but such regulation must afford "due process of law." Within the meaning of the 14th amendment, a corporation is a "person" accorded "equal protection of the laws." Furthermore, the "due process of law" accorded a corporation must be substantive, not merely procedural, which is to say that it must produce "reasonable" results, as judged by the courts. And, in the latter part of the 19th century, the constitutional limitations on the extent to which any State could inhibit the operations of businesses incorporated outside its boundaries made difficult the regulation of interstate holding companies; these became important devices for the creation of "trusts" in 1888, when New Jersey permitted its corporations to hold and vote the stock of other corporations.

In an attempt to regulate what the States individually were not capable of regulating, the Congress enacted the Interstate Commerce Commission Act in 1887, and followed it with the Sherman Antitrust Act in 1890. The Supreme Court decided in 1911 that only "unreasonable" contracts, combinations, or conspiracies are proscribed by the Sherman Act, and, in 1920, that bigness in itself is not illegal.

At mid-20th century, relatively few cases of private monopoly, in a strict sense, exist in the United States. On the other hand, few persons or businesses go very long without dealing with big businesses, and in many lines of activity big enterprises determine, in large degree, the nature of the markets in which all businesses operate. This situation has developed basically from four general public policies: Legal freedom to enter a business with relatively few restaints; freedom of a business to incorporate under general acts; freedom of corporations to grow in size without legal limit; and freedom of corporation organizers to establish within very broad limits the scope of their corporation's activities—including the power to own and vote shares in other corporations.

SIZE, SUBSIDIARIES, AND MERGERS

The basic climate for business just described was developed largely by adjudication of the legality of what may be thought of roughly as acts against others. Businessmen must not perform acts of conspiring to restrain trade or to monopolize. Some acts among businessmen became illegal per se—for example, combining to fix prices, to control output, or to conduct boycotts. Others were ruled illegal if performed unreasonably—which meant, substantially, if they were carried out for the purpose of restraining or disadvantaging competitors, suppliers, or customers. More recently, market power itself has come under surveillance.

For half a century after passage of the Sherman Act, market power achieved by a company through growth or internal organization was substantially immune from judicial criticism. A concern could grow large and powerful, either as a unit or by establishing subsidiaries, since, by and large, legal doctrine holds that a corporation cannot conspire with itself or within itself, and cannot conspire with its wholly owned or wholly controlled subsidiaries. Certain violations of the antitrust laws, therefore, it cannot commit by itself.

Merging of independent companies and acquisition of competitors as subsidiaries were somewhat more questionable activities. If they constituted conspiracy to restrain trade, they were proscribed, but, in general, acquisitions were viewed in the framework of the total results. So mergers, which were seldom prosecuted until they were accomplished, tended to pass muster as reasonably in furtherance of business purposes of the participants. So long as the merged concern did not employ oppressive predatory practices, both the means by which the merger was achieved and the power of the merged company tended to be disregarded.

In 1914, Congress attempted to revise the basis for judicial treatment of mergers. In section 7 of the Clayton Act, it prohibited acquisition by one corporation of the stock of another if the effect "may be to substantially lessen competition between the corporation whose stock is so acquired and the corporation making the acquisition or to restrain such commerce in any section or community or tend to create a monopoly of any line of commerce." It also prohibited acquisition of the stock of two or more corporations if the effect "may be" to lessen competition among these corporations, restrain commerce, or tend to create monopoly.

This measure, however, was open to the interpretation that it frowned on the use of certain techniques rather than on the results of their use. It prohibited mergers by stock acquisition, but not by purchase of assets, and its test of legality was couched in words different from those used in the Sherman Act. In 1926, a court decision approving a purchase of assets that was facilitated by an earlier illegal purchase of stock and accomplished before the Federal Trade Commission could act against the stock acquisition reduced the antimerger provisions of the Clayton Act to a minor instrument of antitrust policy. This section may have been strengthened appreciably, however, by the Supreme Court's 1957 decision that acquisition in 1917–19 by the Du Pont Co. of a 23-percent stock interest in General Motors became a violation when Du Pont came to supply a large part of General Motors' requirments of automotive finishes and fabrics.

In 1950, after many years of deliberation, Congress amended section 7 of the Clayton Act to tighten up its proscription of mergers, whether by acquisition of stock or by purchase of assets—

> where in any line of commerce in any section of the country, the effect * * * may be substantially to lessen competition, or to tend to create a monopoly.

To the layman, this test of legality appears to look more to results than to techniques, but it has not yet been extensively litigated.

The leading case reflecting judicial concern with market power rather than acts against others is that of the *United States* v. *Aluminum Company of America*, decided in 1945.[3] There, Alcoa was judged guilty of monopolizing for being in the forefront with technological competence and productive capacity to serve customers so consistently that no one even tried to compete in the production of aluminum and aluminum alloys as raw materials for fabrication. The company had not performed acts to restrain competitors, for there were no competitors; nor had it acted to prevent anyone from becoming a competitor except by always keeping itself in a position to meet all demands for aluminum.

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[3] *United States* v. *Aluminum Co. of America*, 148 F. 2d 416 (2d Cir., 1945).

Although formally the Alcoa and several similar cases do not overturn the doctrine of the Steel decision of 1920 that size is not illegal, the kind of policies struck down could hardly be carried out effectively by a concern small in its market. And in the Griffith case, the Court said that "size is of course an earmark of monopoly power."[4] Apparently, the market power that flows from size in the relevant market must not be used in such a way as to overawe would-be entrants or to stifle initiative. The approach appears to have been rather similar in the cases so far pursued by the Federal Trade Commission under the amended section 7 of the Clayton Act.

Thus, market power, rather than acts, seems to have become the test by which the position of small business vis-a-vis large business is to be determined.

PATENTS AND MARKET CONTROL

Another public policy which has come to influence the general climate in which small business operates is the constitutional power of the Federal Government—

> to promote the progress of * * * the useful arts by securing for limited times to * * * inventors the exclusive right to their * * * discoveries.

This policy is embodied in the patent law.

This grant of limited monopoly for a fixed period of time is a valuable right for small businesses. The inventor who contributes to the development of technology is protected in his "exclusive right" to his innovation for a period long enough to enable him to establish a going business—which may be in using his invention himself or in licensing others to use it. Many successful enterprises have been founded with this protection from competition and have flourished after the patent monopoly has expired.

From the beginning, however, conflict has existed between the public policy of freedom of private enterprise from restraint of trade, on the one hand, and promotion of the useful arts by a Government grant of monopoly on the other. With passage of the Sherman Antitrust Act, however, the conflict became sharper, and since 1890 many restraints on markets that would have been illegal under the antitrust laws have been successfully defended as proper exercise of rights granted by patent. While over time patent rights have been limited by the policy laid down in the antitrust laws, court decisions generally have recognized enough rights flowing from the monopoly granted by patent to permit domination of a substantial number of important markets by corporations owning patents.

If the exercise of patent rights were confined to the simple act on the part of the inventor of permitting or forbiding use of the patented article or process to others, the influence on markets might be small. The agglomeration of a large proportion of the patents relating to a particular line of activity in the hands of one corporation or a few corporations, however, frequently enables the patent holder to determine who shall engage in the affected line of business, and on what terms, including models to be made, materials to be used, markets to

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[4] *United States* v. *Griffith*, 334 U. S. 100, 107, n. 10 (1948), quoted in U. S. Attorney General's National Committee to Study the Antitrust Laws, Report (1955), p. 49. Hereafter cited as Report.

be sold in, and prices to be charged. Patent holders have been able to obtain adherence to their terms by small concerns through suit and threat of suit for infringement. The cost of defending such suits is high and bears possibly more heavily on a small defendant than on the large plaintiff; compromise on something close to the plaintiff's terms is likely to seem the cheaper course to a small company, even when the patents allegedly infringed are invalid. Where serious patent conflict occurs among large holders, it is likely to be compromised eventually by the formation of patent pools and the division of markets.

In 1926 the Supreme Court agreed that, by virtue of its control over patents relating to the manufacture of electric light bulbs, the General Electric Co. had the right to limit output of its licensees and to require them not only to sell at the same prices as those General Electric charged on its own bulbs, but also to sell only through agents. Five years later the court sanctioned cross-licensing of competing patents for "cracking" gasoline out of crude oil among several major oil companies, although the Government claimed the result violated the antitrust laws.

These decisions appeared to sanction fixing prices, limiting output, and controlling channels of distribution where patented articles were involved. But writing in 1950, Stocking and Watkins concluded that, between 1939 and 1948, the courts had so narrowed the scope of licensing arrangements protected by patents that the General Electric and Cracking Patents decisions were probably outdated.[5]

The majority of the Attorney General's National Committee To Study the Antitrust Laws appears, however, to have accepted the General Electric and the Cracking Patents cases as leading cases that still define the rights of patent holders—subject to numerous qualifications.[6] A minority took issue with the position, not so much on the grounds that the majority misstated the law, as on the grounds that, in large measure, the law need not be as stated, in view of existing precedents and the economic consequences flowing from the accepted doctrine.[7]

In the cases decided since 1948 the courts have continued to examine critically the use of patent rights to obtain or retain control of markets. In this recent period the decided cases appear to have been defining more precisely the limits of the General Electric and the Cracking Patents cases. Patents still confer the right to achieve and retain a degree of market dominance that probably would not be sanctioned in the absence of patents. Patents are no longer a sure defense, however, against charges of monopolization or restraint of trade.

TRADE PRACTICES, "FAIR TRADE," AND PRICE DISCRIMINATION

A group of public policies affecting business climate that is difficult to assess for business generally as well as for any one sector is that governing trade practices. It is relatively easy to agree on the proper

[5] George W. Stocking and Myron W. Watkins, Monopoly and Free Enterprise (Twentieth Century Fund, 1951), p. 474.

[6] Report, pp. 231 ff. See especially pp. 233–236 and 242–247.

[7] U. S. Congress, Senate Select Committee on Small Business, Report of the Attorney General's National Committee To Study the Antitrust Laws, hearings, 84th Cong., 1st sess. (1955). Dissenting opinion of Louis B. Schwartz, appendix B, pp. 258–275.

objectives of such policies as prohibition of fraud and misrepresentation in selling goods and of adulteration of goods. It is not so easy to obtain agreement on the proper objectives of some others.

For centuries businessmen have had remedies both at common law and by statute against fraudulent tactics of competitors that demonstrably deprive them of customers. In some cases consumers have been similarly protected—notably by the requirement of the use of standard weights and measures, purity of customary articles of food, and suitability of common articles and commodities for their ordinary uses. While the variety of goods and services available to consumers and the means available to sellers for influencing customers have widened enormously in recent generations, the twin doctrines that the consumer is the best judge of his own tastes and that a seller must be expected to "puff" a little in representing his goods, have inhibied public policy from intervening strongly between the consumer and his supplier.

Public regulation of trade practices has continued largely a matter for State governments. The earliest and for many years the only major intervention by the Federal Government was prohibition of use of the mails to defraud. In 1914, however, the Federal Trade Commission was set up to enforce the Federal policy that "unfair methods of competition in [interstate] commerce are hereby declared unlawful." A few months later the Commission was also given primary jurisdiction to move against practices recognized as specifically illegal by the Clayton Act, namely, price discrimination, and exclusive dealing and "tying" arrangements, "where the effect of such [discrimination or arrangement] may be to substantially lessen competition or tend to create a monopoly in any line of commerce."

The development of modern advertising techniques (which greatly enhanced property values in trademarks) and the growth of chainstores in the 1920's, together with the depression of the 1930's, gave rise to demands for more specific and certain outlawing of "unfair competition." In particular, retailers wanted price competition regulated, especially competition of the "loss leader" kind, and wanted large distributors limited in their ability to exact concessions from suppliers. In 1936 the Robinson-Patman amendments to the Clayton Act "expressly enumerated conspicuous types of secret concessions, and penalized the discriminatory discounts on which mass buyers were suspected to thrive. The design of the Robinson-Patman amendments was to facilitate proof of the substantive violation while narrowing the availability of statutory exceptions for justifying price differentials challenged under the act."[8] In 1937 the Miller-Tydings Act was passed to amend the Sherman Act and exempt from the antitrust laws agreements prescribing minimum prices for the resale of trademarked or branded commodities which are "in free and open competition with commodities of the same general class produced or distributed by other," when such agreements are lawful in the State of resale. This act did not authorize agreements among businesses at the same distributive level, and did not permit enforcement of agreements against "nonsigners." The McGuire amendment to the Federal Trade Commission Act in 1952 extended the antitrust exemption to agreements under State "nonsigners" statutes, authorized "stipulated" as well as

[8] Report, p. 156.

"minimum" resale prices, and permitted sellers to require buyers to obtain "fair trade" agreements from their customers.

Miller-Tydings Act

Although many uncertainties remain about the precise extent of the exemption of "fair trade" pricing from the antitrust laws accorded by the Miller-Tydings and McGuire Acts, an appreciable volume of business in many States is subject to price-fixing agreements, thus reversing a public policy that long antedates the Sherman Act. In a number of States, however, the courts have held unconstitutional the "nonsigner" provisions of "fair trade" statutes, and Federal courts have ruled that mail-order houses in "free trade" States may sell into "fair trade" States without being bound by "fair trade" laws.[9] These decisions appear to have contributed to the abandonment early in 1958 of "fair trade" pricing by a number of manufacturers of electrical appliances.

The Attorney General's National Committee to Study the Antitrust Laws, after acknowledging that "preserving valuable investments in trademarks and business goodwill from destructive marketing tactics" is a legitimate objective of public policy, concludes:

> The Committee, however, does not consider "fair trade" pricing an appropriate instrumentality for such protection. Since State enactments vest absolute discretion in suppliers for determining the level of a "fair trade" price, the legislative price-setting authorization extends far beyond the essential guaranties of "loss-leader" control. An effective "fair trade" system, moreover, strikes not only at promotional price cutting, but at all price reductions which pass to the consumer the economies of competitive distribution.
>
> In no event can the Committee condone another consequence of "fair trade" pricing. Apart from manufacturers' interest in preserving trade symbols and commercial goodwill, "fair trade" pricing may enable distributors to extinguish price competition. A distributor whose inventory consists largely of "fair traded" products can carry on business freed from the pressures and tribulations of price competition. Accordingly, distributors in some segments of the economy advocate "fair trade" pricing by supplies as a legal means for obtaining the benefits of a horizontal price-fixing arrangement that the antitrust law forbids. It is the Committee's view that "fair trade" when used as a device for relieving distributors from the rigors of price competition is at odds with the most elementary principles of a dynamic free enterprise system.
>
> On balance, we regard the Federal statutory exemption of "fair trade" pricing as an unwarranted compromise of the basic tenets of national antitrust policy * * * [T]he throttling of price competition in the process of distribution that attends "fair trade" pricing is * * * a deplorable yet inevitable concomitant of Federal exemptive laws. Moreover, whatever may be the underlying legislative intent, any operative "fair trade" system facilitates horizontal price-fixing efforts on the manufacturing and each succeeding distributive level. And the prominent existence of a Federal price-fixing exemption not only symbolizes a radical departure from national antitrust policy without commensurate gains, but extends an invitation for further encroachment on the free-market philosophy that the antitrust laws subserve.[10]

Robinson-Patman Act

Opposition to this judgment seems to rest less on the merits of "fair trade" than on the proposition that without "fair trade" retailers would be victimized by other unfair methods of competition, coercion, and monopolization. Such restraints the Robinson-Patman

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[9] *General Electric Company* v. *Masters Mail Order Company of Washington, D. C.*, 244 F. 2d 681 (1957), cert. denied, 78 S. Ct. 32 (1957). For a brief survey of State laws, see Dun's Review, February 1958, p. 33.

[10] Report, pp. 153–4.

Act was intended in a measure to deal with. The Attorney General's Committee, however, concludes that there are—

> ambiguities which still subject to continuous legal controversy the Robinson-Patman Act's prohibitions on various forms of discrimination among a seller's customer's. And nearly two decades after enactment of a supplementary criminal penalty for some price discriminations, courts still confess serious doubts as to whether the prohibition is sufficiently comprehensible to meet the Constitution's guaranties of fair play and adequate notice. Other tribunals disagree on whether this section is really a part of the "antitrust laws" which authorize parties injured by violations to seek private treble damage redress.[11]

Mr. Justice Frankfurter, in his opinion for the Supreme Court in the Automatic Canteen case said, "precision of expression is not an outstanding characteristic of the Robinson-Patman Act * * *" He was presumably thinking of the problems of legal construction for the judge and the lawyer. There are also problems for the economist and the businessman, both in the act and in the decisions construing it.

One way of looking at these problems is by way of the actions and situations the law seems to be intended to govern. Price discrimination is illegal if it meets all of five criteria: (1) The transaction of which the price discrimination is a part is in interstate commerce; (2) the transaction involves goods of "like grade and quality" compared with those for which the higher price is charged; (3) the effect of the discrimination "may be substantially to lessen competition or tend to create a monopoly in any line of commerce, or to injure, destroy, or prevent competition with any person who grants or knowingly receives the benefit of such discrimination, or with customers of either of them"; (4) the discrimination is greater than the saving in cost to the seller of doing business with the recipient of the discrimination compared with the cost of doing business with other customers; and (5) the discrimination is not a response to changing conditions affecting the market or the marketability of the goods concerned. Even if all these conditions are present, the discrimination is not illegal if one other is also present; namely, if the discriminatory price is offered "in good faith to meet an equally low price of a competitor," provided the competitor's price is a "lawful" price.

Concerning the first criterion there is little difficulty; transactions in interstate commerce appear to be readily recognized nowadays with little controversy. All the other tests, however, present problems. For example, is a trademarked article "of like grade and quality" with the physically identical article merchandised by the same seller under no mark or under a different mark? When is competition lessened, injured, destroyed, or prevented: If one competitor is driven out of business or handicapped? Or must most or all competitors be placed at a disadvantage? Is a competitor who is driven out of business injured if he might have stayed in business by changing to another way of doing business—e. g., by selling or buying through the mails? Is he injured if, by being appreciably more efficient than others in the business, he can overcome the handicap of the discrimination? How precisely must a difference in the price charged different customers be related to the difference in the cost of serving

[11] Report, p. 130. Two cases decided by the Supreme Court in January 1958 resolved the last question by holding that sec. 3 of the Robinson-Patman Act is not an antitrust statute (*Nashville Milk Co.* v. *Carnation Company*, and *Safeway Stores, Inc.* v. *Vance*).

them? What changing conditions affecting the market or the marketability of goods will make discrimination legal?

Difficult as such questions may be in themselves, they are made more difficult by other, more general uncertainties. What prices—e. g., delivered or factory?—are to be kept free of discrimination? In what markets? For which competitors?

A few of the decided cases would illustrate how resolution of these general uncertainties influence the answers given to the earlier questions.[12] Part of the weakness of the Robinson-Patman Act is probably attributable to the technical legal design of the statute in view of the history of case law in trade practices. Part of the weakness may be more general—that the single set of words of the statute tries to define offenses in the great variety of market situations in which businessmen operate. Thus it attempts to regulate transactions between manufacturers of raw materials and fabricators, as well as fabricators and distributors; transactions between wholesalers and retailers as well as those of manufacturers who deal with both wholesalers and retailers; transactions of distributors of a varied line of commodities as well as those of distributors of a single commodity; transactions in national markets and in local markets; and transactions in markets dominated by buyers as well as markets dominated by sellers.

SPECIAL TREATMENT OF PARTICULAR ECONOMIC ACTIVITIES

Public policy according special treatment to particular economic activities also influences the climate in which small businesses operate. Regulation of railroads and other public utilities was advocated very strongly by farmers and small-business men in part as a means of ending discriminatory prices and services. Tariffs have been supported by small as well as by large businesses to avoid competition with foreign low-cost producers. An elaborate program of agricultural supports and quotas has been developed in response to the pressures generated by rapidly increasing productivity in this highly competitive sector. The right of labor unions to bargain collectively has been held to require the right to impose certain restraints on trade.

To achieve their basic purposes, such special treatments have set up sheltered markets—and shelter not only aids the exercise of economic power, but also invites the building of such power. Shelter has usually been justified as protecting the small business or an economically weak party; it has often wound up creating additional economic restraints against which the small business or the economically weak have had to contend. Sometimes the restrained groups are in the industry sheltered; sometimes they are in industries that either buy from or sell to the sheltered market.

One road to shelter is administrative regulation. This can be illustrated in transportation. Railroads were regulated to prevent them from giving preferential rates and services to favored customers (such as had played a large part in the growth of the original Standard Oil Trust by enabling it to undercut competitors) and to reduce financial manipulation. The absence of discretion in rate setting, however, helped materially in the devising and administering of

[12] Among these are cases involving Standard Oil Co. (Indiana), the Corn Products Co., A. E. Staley Co., the Automatic Canteen Co., and the Minneapolis-Honeywell Co.

basing-point systems which in turn were used to set pricing patterns inimical to competitive plant location, as in steel and cement.

As long-distance motortrucking became economically feasible, competition from trucks put railroads, with their regulated rates, at a disadvantage in some markets, and also threatened pricing patterns in industries that relied on the structure of railroad freight rates to establish market territories. These developments together with the emergence of "cut-throat competition" and failures in the trucking business in the early 1930's led to the Motor Carrier Act of 1935 to regulate interstate trucking. The act provided for limitation of entry into the regulated business through the requirement of a showing of convenience and necessity before new truckers could engage in interstate business. Where entry is limited by direct public action, regulation, or supervision of prices is frequently demanded as protection against discriminatory pricing, and the Motor Carrier Act authorized the Interstate Commerce Commission to establish minimum and maximum rates. And where entry is limited and prices are regulated, the problem arises of dealing with situations in which franchised companies cannot properly and profitably serve their areas, and an attractive solution is the merging of companies for "efficient" or "rationalized" service. The ICC was authorized to permit merger of motortruckers. Consolidation of trucking companies into interstate systems has been a means of securing the profits of monopoly pricing policy made possible by limitation of entry.

Concentration of interstate trucking business has therefore gone on apace in situations where, in the absence of the special regulatory authority, the general anitrust laws would probably have frowned on such growth of economic power.

As a result, small firms in the interstate trucking business must compete against giants, and intrastate truckers must be limited in their activities so that they shall not "compete unfairly" with duly franchised interstate truckers. Also, small and large concerns using transportation services are limited in the extent to which they can depend on competitive pricing to hold their costs of doing business. The railroads are confronted with competitors whose power to follow monopolistic pricing policies is, in kind, the same as their own. Truckdrivers must be accorded far-reaching powers of bargaining if they are to be any match for their strong employers. And public agencies—regulatory bodies, mediation agencies, and courts, as well as legislatures—are perplexed when they attempt to resolve problems fairly for all interested parties.

Tariffs afford another road to shelter. They are usually advocated as means of achieving sound public policy—enabling "infant industries" to become established, protecting domestic labor standards from being undermined by competition from "substandard" foreign wage levels, protecting the defense potential of the Nation by minimizing our dependence on foreign sources of supply.

By raising prices which foreign competitors must charge if they are to sell in this country, the tariff gives an advantage to domestic producers. Among domestic producers, it frequently affords protection to a monopolistic or dominant firm or a group of firms following a monopolistic price or production policy by assuring that a small competitor will not be able to depend on foreign supplies for help. In an earlier day, tariff protection was a material assistance in enabling

the Aluminum Company of America to achieve a monopoly position; today, the tariff on copper, depending at it does on the domestic price of copper, helps the Big Four to affect prices in the domestic market. Similarly, tariffs on rayon and other artificial fibers, together with price supports on domestically produced natural fibers, have helped large chemical firms to set the terms of competition not only for small producers of artificial fibers but also for large and small users of all fibers.

Another road to shelter is exemption of the weak from the restraints of antitrust policy; this has also resulted in tendencies toward concentration and restraint. Agricultural cooperatives may engage in certain business practices which would be illegal for other business concerns, and may combine to pursue common courses of action. Labor unions may use certain coercive practices against business concerns which business concerns may not use against each other.

The California Fruit Growers Exchange and the National Cranberry Association, to name two that have been engaged in litigation, have been able to exert strong control of supplies in markets for particular products at least in sizable areas. Different prices have been set for milk put to different uses under a classification system used by dairy cooperatives, and milk distribution has been controlled in many markets through a judicious combination of the exemptions of the cooperatives and the milk wagon drivers' union.

By and large, neither agricultural cooperatives nor labor unions may combine with groups of other kinds in ways that would affront the antitrust laws, but acting together, each in its own exempt sphere and without overt concert, they can contribute to the building up of power over markets with which small businesses (and sometimes large businesses) have to reckon.

The examples given—though few and sketchy—indicate ways in which public provision of special treatment for particular economic groups may shift the balance of economic power in favor of large concerns or concerted groups and thus place the small business at a disadvantage. Where a device or arrangement is available to a business to permit expansion or to ease problems, it is likely to be used.

SPECIFIC FEDERAL PROGRAMS FOR SMALL BUSINESS [13]

Since the beginning of the Second World War both the legislative and the executive branches of the Federal Government have shown increasing interest in the problems of small business. During the war, special steps were taken to use the productive facilities of small concerns, provision was made for allocation of materials to small civilian as well as military producers, and price control regulations distinguished among businesses in different circumstances.

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[13] For discussion of Government loan programs for small business, see study 12 (Arlt), p. 253. For a summary of programs carried on by Federal agencies, see Federal Policies and Programs That Benefit Small Business, prepared for the Cabinet Committee on Small Business (September 23, 1957, distributed by the Department of Commerce and the Small Business Administration). For more extended discussions, see the semiannual reports of the Small Business Administration, and recent annual reports of the Secretaries of Commerce and Labor, the Atomic Energy Commission, and the Administrator of the General Services Administration. See also hearings, reports, and documents of the Select Committee on Small Business, U. S. Senate, and of the Select Committee on Small Business, House of Representatives. See also publications of the President's Conference on Technical and Distribution Research for the Benefit of Small Business, held September 1957.

Since that time, and especially since the Korean episode, this interest has grown. The legislation establishing the Small Business Administration laid down the policy that—

> The essence of the American economic system of private enterprise is free competition. Only through full and free competition can free markets, free entry into business, and opportunities for the expression and growth of personal initiative and individual judgment be assured. The preservation and expansion of such competition is basic not only to the economic well-being but to the security of this Nation. Such security and well-being cannot be realized unless the actual and potential capacity of small business is encouraged and developed. It is the declared policy of the Congress that the Government should aid, counsel, assist, and protect insofar as it is possible the interests of small-business concerns in order to preserve free competitive enterprise, to insure that a fair proportion of the total purchases and contracts for supplies and services for the Government be placed with small-business enterprises, and to maintain and strengthen the overall economy of the Nation.[14]

In pursuit of this policy the SBA is authorized to provide a number of services for small businesses, among them extending loans and other financial assistance under certain conditions, helping to obtain a fair share of Government procurement, and providing technical and management assistance and information about markets.

The SBA has authority to intervene with Federal procurement agencies to assist small businesses in obtaining a fair proportion of the Government business. It has authority to work with the Armed Forces and the General Services Administration to devise effective means of informing small businesses of the Government's needs; to determine, with the purchasing agencies, what contracts can advantageously be set aside to be bid on by small businesses only; to certify to the procurement agencies the financial and technical competence of particular small businesses to perform on certain contracts; and to act as a prime contractor for the Armed Forces, subcontracting the work in turn to small businesses.

The military services have set up special procedures and employed special personnel to provide opportunity for small businesses to bid on contracts and to find small suppliers from whom negotiated contracts may be obtained. They have worked with SBA in establishing set-asides, in listing invitations to bid in publications circulated to small businesses by Government agencies, and in making information available through various Government channels about their buying plans and bidding requirements.

In all of this, committees of the Senate and the House of Representatives have been particularly active, calling the attention of the executive agencies to small business complaints, making suggestions for implementing policies, and asking for frequent accounting of accomplishments under the programs. By and large, the committees appear to be dissatisfied with the rate of progress. The major deficiencies to which they call attention appear to be that the proportion of all military purchases that come from small businesses continues to be small (about one-fifth) and that it is constantly in danger of declining; that the policy of buying wherever possible from small business is not pursued vigorously enough, and is perhaps disregarded at the middle management level of procurement officers and special-

[14] U. S. Congress, Small Business Act of 1953, Public Law 163, title II, 83d Cong., 1st sess. (1953), sec. 202 (15 U. S. C., sec. 631).

ists; that research and development work tends to gravitate toward large producing companies when it might better go to small or new companies; and that despite vigorous efforts, small businesses tend to be edged out of the procurement picture by the modern purchasing methods of making prime contractors responsible for weapons systems and large projects. To this last complaint there are at least two parts: that prime contractors have too much discretion in subcontracting work; and that when defense orders are reduced, prime contractors reduce the amount of work they subcontract.

In keeping all of these issues before the public, congressional committees have undoubtedly broadened the market for small manufacturing enterprises. In addition, the committees have provided a continuing public forum for consideration of small business problems, not only those arising out of Federal procurement, but also those relating to the general climate in which business operates.

In a way, the problems encountered in obtaining a fair share of the Government's business for small concerns reflect the problems of small business in the economy at large. First, the armed services are large organizations with large staffs whose work must be coordinated through chains of command by means of explicit rules, regulations, and manuals of procedure. Such organizations deal best with large organizations. They may have difficulty in dealing with suppliers whose organizations are not similarly stratified, whose procedures and general specifications are not in codified files, and whose decision makers work informally.

Second, much of procurement is of such a nature that dealing with large businesses appears to contracting officers cheaper and more efficient than dealing with small concerns. A good deal of money is spent on a large number of substantially identical items which are presumably produced most efficiently and cheaply by mass production; the conclusion that can easily be drawn is that this calls for dealing with the large company, although the size of plant appropriate for maximum efficiency and minimum cost is not always directly related to size of company. A large amount of money is also spent for a relatively small number of highly intricate mechanisms and systems which must be designed before they can be built. Here, too, it may seem logical to proceed from the fact that such work requires highly trained and competent skills and imagination to the conclusion that these qualities are most readily found in large organizations.

Third, the fact that large businesses tend to manufacture (or to contract for the manufacture of) a wide range of products makes relatively easy the contracting officer's job of finding a supply of related products. So a large business known to many contracting officers is more likely to be invited to bid on a new product than a small business—even a small business that has already dealt with one or a few contracting officers.

Fourth, the nature of the procurement process and the rules by which it must be governed also make it easier to deal with large companies. Contracts awarded to large companies are subject to renegotiation, whereas those with small companies are not, or at least not to the same extent. A contracting officer, therefore, can be less meticulous about obtaining the "right" price from a large company. Similar considerations arise from the fact that contracts frequently have to be modified as to quantities and delivery dates.

Fifth, a certain degree of market control (developed by a large company as a result in part of public policies discussed earlier) may be advantageous, particularly in ability to guarantee performance. An integrated company, able to divert to Government work materials produced under its own control, is much less affected by market developments especially in periods of generally high demand or "shortages" than a small company that must buy supplies in the open market. Similarly, both production and development work in fields abounding in patent rights may very easily go to the companies least likely to have trouble in obtaining access to patents. In connection with patents, one of the problems that has been brought to the attention of Congressional committees is the invasion by Government specifications of the patent rights of small companies.

SUMMARY

Public policies regulating business operations are the subject of strong dissent as well as of widespread acceptance. Dissent ranges from the view that such policies provide inadequate protection against concentration of economic power to the view that they penalize efficient business in favor of the inefficient.

Professor Mason has summarized the issue in the following terms:

> We have always looked to our competitive free-enterprise system to accomplish two different things. On the one hand, we have expected from it a set of powerful motivations, stimulations, and drives toward increased output, product improvement, cost reduction: in general, toward increased efficiency in the use of economic resources. On the other hand, we have expected from the competitive system a set of limitations to the growth of private economic power. The competitive system is supposed to be self-regulating in the sense that a continual striving for market advantage by all firms effectively sets limits to the market power of each.
>
> Both of these objectives are important, and it is essential that public policy keep both in mind * * *.[15]

Each judgment of the appropriateness of antitrust and related public policies implies a judgment about the adequacy of the balance between the two objectives discussed by Mason. Judgments are hard to reach. Both "efficiency" and "restraint of private economic power" are broad and intricate concepts whose meaning may vary with the level of generality under consideration. Thus, the relative efficiency of two kinds of steelmaking furnaces or oil refining stills may be judged by engineering tests of useful output in relation to waste; the relative efficiency of two economic organizations may be judged by the market test of net earnings or dividend payments either in absolute size or in relation to some factor such as capitalization or volume of sales. For public policy, the second test by itself is inadequate because it accepts whatever market power the organizations may have; and the first is inadequate because it takes no account of the relevance of the technology to the market. Furthermore, if the exercise of economic power is impeding production of a commodity that consumers would greatly prefer over the one under consideration, the economy includes a large inefficiency, regardless of what test may be deemed appropriate for the situation as it is. In the same way, size is no sure test of power: small concerns are not necessarily with-

[15] Edward S. Mason, The New Competition, Economic Concentration and the Monopoly Problem (Harvard University Press, 1957), p. 375.

out economic power in their own markets, and large concerns do not always dominate theirs.

Trade practices, in themselves, also are inadequate guides for administration of public policy. A business may increase its own "efficiency" by attracting a large number of customers. The means for doing this range all the way from providing a high quality of service to engaging in fraudulent advertising, and the many possibilities can be used in a great variety of combinations. Within this range is the practice of selling at lower prices, alone or combined with other features.

On the score of efficiency in use of economic resources, the businessman who can lower prices is ordinarily to be commended; this attitude has led to the general rule under the law that agreements to fix prices are illegal, for the general experience is that such agreements tend to keep prices up or raise them. The businessman who lowers prices in order to drive his competitors out of business so that he can later raise prices, however, is striving, not for efficiency, but for control, and for this reason the law seeks to restrain him. When does efficient price reduction become predatory price cutting? This is a knotty issue of fact whatever balance of efficiency and power is desired.

Furthermore, the merchant for whom large sales volume and low selling prices go hand in hand may be a very worthwhile distributor for a supplier, who can increase his own efficiency by selling to this merchant at lower prices than to others. This is "discriminatory" pricing, but it is an avenue, at least in the first instance, for reducing real costs to consumers. At the same time, discriminatory pricing may also be exacted from the supplier by a high-volume retailer who hopes to use his advantage to drive out competitors. Public policy tends to frown on this latter practice; it must be recognized, though, tht the first type of price discrimination will also tend to take business from the retailer with the small turnover.

In general, price discrimination and related practices seem to be particularly difficult to evaluate when multiples are involved—when participants deal in many commodities, in many geographically separated markets, with many buyers or sellers, at several levels of distribution, or through several distributive channels. In such situations, a participant may find it possible to increase his own efficiency by adopting practices that are oppressive to those who deal with him. Thus loss-leader selling, maintaining regional price differences, dealing with both wholesalers and retailers, furnishing private brand merchandise to chainstores or mail-order houses, and selling trademarked items through chainstores all present difficult problems in balancing efficiency and restraint of economic power.

Size by itself, over most of its range, is no better guide to the execution of policy than are practices. The very small, when not leagued together, pose no threat of economic power; the very large clearly do. In between, largeness may go both with efficiency and with market power in varying proportions depending on the market context. Corwin D. Edwards cautions that "power derived from sheer size" should be distinguished from monopoly or oligopoly power.[16] He concludes:

[16] Corwin D. Edwards, Big Business and the Policy of Competition (Western Reserve University Press, 1956), pp. 38–54.

> The guiding principle in * * * a policy toward big business should continue to be the maintenance of competition for political as well as economic reasons. The test of legality should not be the quality of business performance, but the existence of adequate competition. We should recognize, however, that a large enterprise is enabled to lessen or destroy competition by its own possession of economic power and our concept of power should be broadened to fit the facts of big business. We should cease to pay exclusive attention to monopoly power, as distinguished from types of power * * * that are traceable to bigness instead of monopoly. We should cease to smuggle other types of power into our thinking by calling them monopoly power. We should accept the fact that power may be derived from oligopolistic or monopolistic place in a significant market, from disparity in size between competing corporations or between buyer and seller, from structural forms such as vertical integration or diversification, and from the aggregate bigness of a corporation's activities as a whole. None of these types of power is unvarying in its effect; each may be present in different degrees; and each may be reinforced by other types of power possessed by the same company and may be reduced or increased by the power of other companies. We can rely upon no simple formula for detecting power or for determining where it has become so great that it must be curbed. But where we can identify power that impairs competition, we should strike it down.[17]

Identifying the "power that impairs competition" is what creates the problems for the execution of policy. Such power may be exercised by one large concern against another or against a small concern, or both. In any particular case, the legal judgment may depend heavily on which situation is at issue. In connection with questions of price discrimination, in particular, difficult problems arise when a large concern is exercising its power against both large and small concerns, or when the rights of both large and small are in conflict. The courts have not always upheld the right of the large to exercise their power, but neither have they invariably protected the small against the power of the large.

The problem of protecting the small against the large is also complicated by the fact that the small do not always want to be independent, and do not always want to face the risk involved in being efficient. One element among many in advocacy of "fair trade" is a desire of small businesses to be free from the need to make price decisions, or to meet the market tests offered not only by the large chainstore, but also by the typically small discount house.

To imply that small businesses are frequently content to operate in the shadow of big businesses, however, is not to agree that public policy is, or ought to be, directed toward making or keeping small businesses the mere executors of decisions of big businesses. The American ideal of economic organization has always been freedom to engage in economic activities, with success or failure depending on effectiveness in meeting market demands, without coercion of greatly superior power. Despite the increased complexity of technology, including advertising, which makes realization of the ideal more difficult, the ideal remains.

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[17] Ibid., pp. 131–132.

15. MANAGEMENT PROBLEMS OF SMALL MANUFACTURING ENTERPRISE IN RELATION TO FINANCING [1]

INTRODUCTION

A major problem for managers of many small manufacturing enterprises is obtaining capital to finance current operations and expansion. Capital may be unavailable, or available only on terms which impose costs or a degree of control unacceptable to small manufacturers.

This paper, largely based on the combined experience of members of the professional staff of Arthur D. Little, Inc., undertakes a broad consideration of typical obstacles to financing of small manufacturing enterprises. For this reason, major emphasis has been placed on weaknesses and limitations of small concerns rather than their strengths. Obviously, generalizations have been made which do not apply to all small manufacturers. Some small manufacturing concerns have superior management and prosper. Further, there are advantages as well as disadvantages in small size. For example, smaller concerns often have relatively lower overhead and administration costs than larger concerns as well as greater flexibility of action and the ability to adapt more quickly to changing conditions. There are numerous successful small manufacturing enterprises in the United States. They illustrate the important contribution small business makes to the American economy. However, this should not be permitted to obscure the fact that, in general, financing is a serious problem for managers of small concerns.

Certainly one of the basic obstacles for small manufacturing enterprises is the belief of lenders and investors that there are greater risks in financing small than large concerns. Large size carries with it an implication of stability and security and, thus, low risk. Further, an investor knows that if he buys stock in a small concerns, he may have difficulty selling it and converting his investment back to cash. This lack of easy marketability increases his risk.

Probably the single most important factor affecting risk of financing small enterprise is managerial ability. For this reason, any analysis of the financing problems of small enterprise must ultimately be concerned with management problems and performance as well as with limitations associated with small size.

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John Clark, Jr. Education: Bachelor of science (1940) and master of science (1943), University of Arkansas; and master of business administration (1947). Harvard Graduate School of Business Administration. Taught for 5 years at the University of Arkansas. Courses taught included industrial management and current economic problems. Two years at Harvard Business School as a research associate preparing cases for use in their course in business history. During this period completed all requirements except my doctoral thesis for the degree of doctor of commercial science. Joined Arthur D. Little, Inc., 5 years ago.

CHARACTERISTICS OF SMALL MANUFACTURING ENTERPRISES

Three characteristics of small manufacturing enterprise will be considered in discussing management problems in relation to financing. One characteristic is that management authority and responsibility is mainly centered in one man, who exercises direct personal control over company operations. By comparison, in large companies management responsibility ordinarily is shared by a number of executives. Decisions of one executive are subject to scrutiny by his peers. Top management control is impersonal since instructions may be transmitted through various management and supervisory levels before reaching the action level. Small size, a second characteristic, affects management's ability to obtain financing in two ways. First, as it has been pointed out, in general, larger concerns are better able than smaller concerns to obtain financing because their greater size implies greater stability and safety. Second, small size also may limit the ability of a concern to compete with other larger firms in an industry. The third charactristic of small enterprise is that managers ordinarily have an ownership interest in the enterprise, they manage, so ownership and management are largely synonymous. By comparison, management in a large company rarely has majority stock control of the company they manage.

The combination of ownership and centralized direct management can be both an operating strength and the source of some of the important obstacles to successful financing of small manufacturing enterprise.

POSSIBLE EFFECTS OF OWNERSHIP COMBINED WITH DIRECT PERSONAL CONTROL

Problem of "undermanagement"

Since the manager controls directly, the small business has a great deal of flexibility in operations. It is possible to quickly take advantage of special situations. Production schedules can immediately be adjusted to make certain that special orders are filled on time. The manager can decide to make a change in design and put his decision into effect at once. Since control is centralized and direct, managers of small enterprises avoid many of the delays and problems of coordinating activities of the various departments found in larger companies. Further, if something goes wrong it is usually more quickly apparent in a small than large concern and corrective action can be taken immediately.

However, because he is responsible for all decisions, the ability, energy, and time of the manager of a small enterprise are spread very thin. For example, at any given time the manager of a small concern may be faced with problems which he must solve involving production, marketing, pricing, purchasing, product development, quality control, personnel, and finances. Because of the variety and complexity of the decisions he must make, the manager of a small company cannot hope to spend time on any but the most immediate and urgent problems.

This has several important consequences. Because he cannot specialize on just certain kinds of problems and has little time to spend in making any one decision, the manager of a small concern frequently does not come up with as good a solution to a problem as the specialist in a large company. Since he is very busy he may concentrate on problems which interest him personally or which are in areas with which he is most familiar. Other equally important problems may not receive enough attention. Further, he has little time to spend on keeping up with curent market or technical information, on planning future operations and financial requirements, or on improving performance in those areas where no crisis exists. Financial and cost records of small enterprises often are not kept in sufficient detail to furnish the manager with the information he needs to make decisions. Thus, a basic characteristic of small manufacturing concerns which can increase risk and lead to lack of confidence among investors and lenders is likely to be "undermanagement."

For example, when owner-managers of small manufacturing concerns approach prospective lenders or investors for long-term capital for expansion, they often do not supply needed financial and operating information, have not taken into consideration all of their requirements for fixed and working capital, and have made little investigation of market conditions and competition. At the same time they often are very reluctant to give up any appreciable degree of either operating or ownership control as a condition of obtaining financing.

Obviously, these generalizations do not apply to all small manufacturing concerns. Some small concerns develop management organizations patterned after those found in large companies, keep and use detailed operation and cost records, plan future operations and prepare financial budgets, and keep up with the technology and marketing methods of their industry. Such concerns are prepared for growth and show it. Smallness is a stage through which they pass.

Insistence on retaining complete control

When the manager of a small company insists on retaining personal direct control over policies and operations, he generally limits the growth prospects of his company. The problem of "undermanagement" increases in importance as a concern grows and the number of important decisions to be made increases. Sometimes the owner-manager makes a conscious decision to limit size because he wants to keep his concern from growing too big for him to manage. However, in many small enterprises there is a desire to grow and at the same time the owner-manager insists on running his show.

Frequently, the manager of a small enterprise is a doer rather than an administrator. He wants to make decisions personally and put them into effect directly rather than through an administrative organization. While he may need additional financing to build a new plant, buy new equipment, or introduce new products, he may not be willing to submit to restrictions and limitations on his authority by investors or lenders, particularly when questions of sharing ownership and management are involved. In many such situations, lenders and investors are not willing to supply capital without obtaining some measure of control because of the risks involved. Unless a manager is willing to share authority and responsibility, there is always the danger that expansion will overextend his ability to control operations

directly. Thus, the end result of expansion may be a decline in the rate of return on investment.

Lack of management replacements

There is often a very great difference in quality between top management and second-line management in a small company. This raises real questions not only as to the ability to expand successfuly but also as to the ability of the concern to continue operations if the manager suffers a prolonged illness or dies. Frequently, there is no capable replacement available within the enterprise and it may be very difficult for the heirs and other stockholders to find and attract the caliber of manager required.

Nepotism adds to the risks of management succession in small business, jobs can be found for sons or other relatives that will give them something to do until they prove themselves but will not endanger operations. However, in small companies no such safe haven exists at the management level. At the same time the owner-manager frequently has a strong personal desire that a son or other relative succeed him when he retires or dies. And, since the family owns the business he can be relatively certain that his wishes on succession will be carried out. Such family preference is very discouraging to able nonrelatives and, if the chosen successor proves to be incompetent or not interested, there may be no trained, qualified replacement.

It should be noted that nepotism may be beneficial in that able relatives may be encouraged to stay with a small enterprise because of family loyalty. Further, many persons with managerial skill prefer employment with smaller companies because of the opportunity to benefit directly from their ability rather than have the results of their personal efforts diluted and lost in a corporate maze. For many small companies, however, management succession is a serious problem.

The problem of providing for succession and protecting estates leads some owner-managers to sell their companies. In many cases there are good reasons behind such a decision. It takes a relatively short period of incompetent management to dissipate business worth that may have been built up over many years. Also, unless there has been careful planning for estate and death taxes, heirs may be faced with the necessity of selling some of their holdings of the company's capital stock to pay taxes. Finding buyers of stock of a closely held company under forced conditions may be quite difficult, particularly if the concern has a new unproven management. Further, unless the heirs are willing to sell majority control, they may have trouble finding buyers under any circumstances.

Sometimes the owner-manager of a small concern sells his company to a larger company in order to gain access to capital markets through the acquiring company and thus to obtain financing needed for expansion. However, absorption by, or merger with, large companies can hardly be considered the solution to financing problems of small manufacturing enterprises in general.

In any event, threats to the continued existence of small manufacturing enterprises arising out of the lack of qualified and competent replacements for top management are given considerable weight by lenders or investors when long-term capital commitments are involved. Moreover, there is no question but that the refusal of managers of small enterprises to delegate authority and responsibility and their emphasis

on family management tends to reduce the quality of second-line management.

INFLUENCE OF SIZE ON MANAGEMENT'S PERFORMANCE

In some areas it is difficult to distinguish clearly between the effect of undermanagement on the financing problems of small enterprises and the effect of limitations arising from small size. The important point is that the problems exist.

Marketing problems and undermanagement

Marketing, for example, is an area of weakness in many small manufacturing enterprises. This may be explained in part by the fact that many small manufacturing enterprises have been started by persons with production or technical backgrounds who have had no experience in marketing goods and have little appreciation of the importance of marketing to the success of the enterprise.

In many instances there appears to be a tacit assumption by management that if goods can be produced they will be sold more or less automatically. Where new products are involved, management may devote a great deal of effort and money to developing a product and tooling up for production, while little or no investigation will be made to determine if the new product has any attraction for prospective customers. As a result, too little attention may be devoted to questions such as: What is the size of the potential market? How long will it take and what will it cost to develop the market? Through what channels should the product be marketed? What selling price and discount should be established? And, what service will be demanded by customers? In particular, management tends to underestimate the costs of market development. These costs are often several times as great as research and development costs.

At the same time, because of limited sales volume, small concerns do not have the same alternative distribution methods open to them as do large concerns. While sales are the result of marketing activities, the methods of distribution that can be employed are affected by the volume of sales and the number and location of present and prospective customers.

For example, a small concern producing a product to be sold to widely scattered customers in small lots usually has to rely on manufacturer's agents or distributors to reach its customers. It cannot maintain a full-time, company-paid-and-controlled sales force to call on potential customers because too many calls would have to be made in comparison to the volume of sales per salesman. In this situation, a concern usually must rely on persons over whom it has little or no control for sales. By using agents and distributors the small company obtains widespread representation at the expense of control over promotion and sales efforts. As a result, the small company frequently may have little or no direct contact with final customers who use its products. The users are really the customers of the agent or distributor. If the agent or distributor stops handling the company's products, the customers may be lost to the company because the agent or distributor merely substitutes another company's products to supply "his" customers. When agents are used the company may have no sales organization of its own. When distributors or wholesalers are

involved, the company usually has a small sales force to call on distributors, but relies on the distributor's salesmen to call on final customers.

Because of the absence of direct contact with customers, the small company may not get the benefit of suggestions or advice regarding new or improved products from customers.

Small companies have a major problem in the initial selection of agents or distributors. It is very difficult for management of a small concern to find and evaluate properly manufacturers' agents and distributors.

Even if the agents or distributors selected are good and are cooperative, the small concern is at a disadvantage on large orders with large companies which sell direct to customers. The large concern can make price concessions which distributors cannot make. Ordinarily a small concern distributing through a middleman cannot compete on large orders.

If a large company wishes to conduct an intensive promotion program it instructs its salesmen and the program is put into effect. A small company can ask its representatives to increase their efforts or to participate in certain promotional or customer education programs, but it cannot be sure the agents or distributors will do what they are asked. Further, agents and distributors usually also represent other manufacturers and cannot devote their full-time efforts to selling one company's products.

It should be pointed out that in some segments of industry large concerns may use distributors, either company controlled or independent. In such cases control of sales activities is less of a problem because the large company's line is very important to the distributor. Small companies can exercise less control because their product line frequently does not contribute important volume to distributors.

Small companies which sell their products in local and immediate regional markets frequently can sell directly because a salesman can make enough calls and get enough orders to make direct selling economical. However, even here the small company is at a disadvantage with large companies in finding and keeping good salesmen. Competition is strong for the services of good salesmen. Management in a small concern cannot devote the time to finding and hiring salesmen that large companies can and do. Frequently the small concern cannot offer a prospective salesman as much as a major company in income, security, or prestige of company name. If a salesman is successful, the small company may lose him to a larger competitor who can offer the salesman more money and more chance for advancement.

There are a number of other ways in which small manufacturing enterprises are at a disadvantage with their larger competitors in American markets. Small concerns can less frequently take advantage of carload rates on rail shipments and must pay more costly less-than-carload charges. The relationship between carload and less-than-carload (LCL) charges per 100 pounds by railroads varies widely by product but in many instances LCL rates on manufactured products are at least 50 percent higher than carload rates and may be 3 or 4 times as high. Further, carload shipments may have the benefit of special commodity rates for which LCL shipments are not eligible. Also, when rate increases are granted, a top limitation is sometimes placed on

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carload shipments of particular commodities, a limitation that does not apply to LCL shipments of the commodities. Shipping costs usually are not as big a problem in local or regional markets since the small manufacturer can ship by truck on much the same basis as his larger competitor. However, the small concern does encounter the problem in national markets.

Small manufacturing concerns also find their marketing problem complicated where they encounter reciprocity policies. Large concerns which buy important quantities of goods or services expect suppliers to reciprocate and buy from them in return. This is understandable but it puts small concerns at a great disadvantage as they are not important enough to suppliers to demand reciprocity.

Small manufacturing concerns sometimes find that they are at a disadvantage where advertising and promotion are concerned; in particular if they sell to industrial users rather than to final consumers who can be reached by mediums such as radio or newspapers. Advertising agencies and the mediums used are geared to serving large accounts in national markets. Ordinarily the small manufacturer cannot afford national advertising and in addition may have difficulty in reaching potential customers in regional markets.

In many small manufacturing concerns a major proportion of sales are accounted for by a small number of customers. This greatly increases risk since the loss of 1 or 2 customers can substantially reduce total sales volume. Investors and lenders are reluctant to risk funds where there is too much dependence on a very few customers.

There are two types of small enterprises which because of lack of sales organization offer unusual risks for lenders or investors when long-term financing is involved. The first is represented by the thousands of small manufacturing enterprises organized during World War II and the Korean war to produce parts and subassemblies as suppliers or subcontractors to prime contractors with war orders or who were themselves prime contractors. In some instances, existing concerns disbanded their sales force and converted entirely to war production. When defense or Government business is lost, these concerns face unusually difficult problems. They frequently are equipped and staffed for quantity production of special items but have no proprietory products, no civilian markets for what they make, and no sales organization.

A second type are firms which manufacture largely or solely for chainstores or other large organizations under private brands. They also are in a very risky position. With no sales force and no brand of their own, and dependent on one large customer, the concern is in a very poor bargaining position regarding prices and profits.

To sum up, because managers of small enterprise frequently are on unfamiliar ground where marketing is concerned and because of the difficulty in competing as a small concern in a mass distribution economy, it often is difficult for small business management to convince lenders and investors that they should risk their money with them.

Introduction of new products

If a small company develops or has an opportunity to acquire the rights to a good new product, management is faced with a real problem of how to exploit fully the market potential because of limitations inherent in small size. If it introduces the new product it can antici-

pate that it will be copied by larger competitors who, since they are organized for mass distribution, may be able to obtain a major share of the market.

Further, although a strong patent position is of relatively greater importance to small than to large companies, it is more difficult for a small concern to defend its patents. A patent must be adjudicated before its worth and coverage can be established and patent litigation is a long and expensive process. The product may well be obsolete before litigation has been completed. Further, the courts have consistently made a more strict interpretation of what is patentable than has the Patent Office. Thus, in any patent litigation it is possible that the courts will find that most, if not all, of the claims under a patent do not conform to judicial interpretation of patentability.

As a result, in many instances small companies depend on secrecy for protection rather than apply for patents and disclose details of the process or product. Yet secrecy offers little actual protection for small companies. Ordinarily, a major concern is able to copy a new product or to develop the required process knowledge and, since it has greater volume, is better able to take advantage of the economies of mass production and manufacture at lower unit costs than the small concern.

The inability of small enterprises to take full advantage of new product developments because of limitations in production and marketing capabilities, and the problem of protecting against copying by competitors, makes it difficult for management to get capital to finance introduction of new products. Thus, in many instances, managers of small manufacturing enterprises believe they have more to gain from making minor improvements in existing products than from spending their limited resources to develop and introduce completely new products.

Problems associated with marketing and technical research

Another important area where small manufacturing enterprise has problems involving both management performance and limitations of size is in technical and marketing research.

Research and development activities are assuming an increasingly important role in American industry. Rapid advance in science and technology is the outstanding characteristics of the American economy today. New products are being introduced to the market and old products are being improved and restyled at an ever-increasing rate. This has brought with it a concurrent increase in the rate of obsolescence in existing products. In many instances, small manufacturing enterprises have not kept pace with industry trends in research and development. This has increased the danger that their products will become obsolete and that small concerns will fall behind in technology. Certainly investors have strongly favored concerns active in research and development.

Part of the explanation for the lack of research and development activity in small manufacturing concerns is found in management's preoccupation with everyday operating problems. Management usually does not have the time to spend on the forward planning required for research and development. Also, management frequently does not understand or appreciate the value of research and develop-

ment. Research is all too often considered to be something that big companies do.

At the same time it should be recognized that sales volume greatly influences a company's ability to spend for research and development. Company-financed research and development expenditures as a percentage of sales vary greatly from company to company and industry to industry, ranging from zero to over 10 percent in some highly technical fields still in a developmental stage. Expenditures for research and development average between 2 and 3 percent of sales in fields such as electrical equipment, professional and scientific instruments, and chemicals in which science and technology are important. For industry as a whole company-financed expenditures average between 1 and 2 percent of sales. Obviously, in any particular industry a small concern is less able to spend on research than a larger competitor.

In practice it costs as much to do a specific laboratory or market research project in a small as in a large concern. For example, in most cases research and development costs for a new product are at least $20,000 to $30,000 and often are much greater. When national distribution is planned, market research on the product usually costs at least $10,000 and may be much higher. Further, these estimates do not include costs of developing markets once the product is introduced. As discussed earlier, market development may entail far greater expenditures than research and development. Obviously, such expenditures for research and development involve greater risks for a small than a large company because the expenditure is larger in comparison to the small company's sales.

It should be emphasized that research does involve a high degree of risk. There is no guaranty that either market or technical and scientific research will result in increased profits. Further, research and development on a particular product or process may involve expenditures over a period of several years with no return and no guarantee of future return. As a result, banks generally are reluctant to make loans to small manufacturing enterprises devoting what seems to be a high proportion of resources for research and development purposes.

In many instances small business management complicates its research and development problems by not knowing of or taking advantage of information that is freely available to it. Trade associations, scientific societies, trade and business journals, and governmental agencies publish data of great potential value for analyzing markets and keeping up on technical advances. Also, many small concerns have not taken advantage of relatively low-cost consulting assistance available in universities and colleges as well as from established industrial consultants. Actually, a number of universities and counsulting organizations have developed special arrangements for providing research and advisory service for small enterprises.

In many cases, the manager of a small manufacturing concern may not have the time or the ability to evaluate the profit potential of new products or processes. This is one situation where the opinion of outside research organizations may be of particular value for its objectivity. Actually, management should make at least a preliminary evaluation of market potential before substantial funds from any source are invested in engineering research or development on new products or processes. If the proposed product has no cost or performance advantages over existing or prospective

competing products, such an investigation will prevent the spending of large sums of money on lost causes. In any event, provision of detailed information regarding the prospect for profits from proposed research and development expenditures is of fundamental importance when approaching lenders or investors for financing. Unfortunately, in too many instances small business management has only intuitive judgments of a highly optimistic nature to offer.

Disadvantages in purchasing

Purchasing is another function, the importance of which is sometimes overlooked by managers of small manufacturing enterprises. Too little attention may be given to scheduling purchasing so that it ties in with production requirements. Further, in some instances small concerns do not establish procedures to check adequately the quality of materials used in production. Often purchasing is just another responsibility for an overworked management.

Even if management does give special attention to purchasing, small enterprises are at a competitive disadvantage in purchasing because they frequently cannot buy in sufficiently large quantities to take advantage of carload prices or volume discounts. This can be quite important. For example, sheets of stainless steel cost approximately 90 percent more per pound in lots of 50 than in lots of 10,000 pounds. Freight costs per pound are greater for small than large orders. At the same time, small enterprises cannot afford to buy in large quantities and tie up capital in raw material inventories in excess of current production needs. When working capital is inadequate, a small concern may not be able to take cash discounts on its raw material purchases. This is less likely to be a problem in large companies. In addition, a small concern is not an important factor in the market and does not have a strong bargaining position as to price or service.

Actually, a small concern may find itself in the position of buying raw materials from a competitor. This is a result of a trend toward vertical integration in American industry. Some producers of raw materials have added manufacturing and converting activities that put them in competition with their customers while other large companies have integrated back and have acquired control of their raw material supplies. Increasingly, large concerns have integrated to the point where everything from production of raw materials to the sale of the final end product is under one company's control.

As a result, the small concern is at a competitive disadvantage since the large concern can go after large orders by reducing profit markup either on materials or on manufacturing costs. In some industries integration has progressed to the point where small enterprises are largely restricted to selling to customers whose orders are too small for large concerns to bother with or to filling orders for products of a special nature wanted in small quantities.

Equipment and production problems

It is in the administration and control of production that small business management usually is most effective. The fact that there is direct management means that the manager himself knows what progress is being made on particular orders or if something has gone wrong. Acting directly he can achieve greater flexibility in scheduling and can quickly take any corrective action needed.

As was pointed out earlier, many small concerns are formed by persons with production experience, so that the manager usually is on firm ground when production problems arise. The manager may actually be able to operate the plant machinery himself and in addition may have a good personal relationship with his workers because of his direct contact with them.

Problems in the production area develop mainly where equipment and length of production run are concerned. Many small enterprises do not have sufficient volume in any one product to be able to tool up to achieve the economies of mass production. There is great emphasis among machinery and equipment manufacturers on the development of special equipment with automatic controls to operate continuously at high volume. Such machinery is costly and must have a high degree of use in order to pay for itself. Changeover or setup costs for such machinery are high and make short runs uneconomical. Thus, small concerns ordinarily cannot take advantage of the economies such machines offer for volume production and, instead, use general purpose machinery which is more flexible in use and more adaptable to short runs and changeover. Furthermore, the small concern does not have the capital to tie up in the large inventories of finished goods that would result if the production economies such machinery offers were to be achieved.

Thus, even in production, the small manufacturer faces the fact that manufacturing in the United States is geared toward mass production, and equipment manufacturers are obviously oriented toward supplying the needs of big customers. In many industries production equipment is becoming more specialized and more costly. In particular, it is difficult for a small manufacturer to compete with large manufacturers in product lines where large orders of standard products are involved. This has tended to restrict small enterprises to their areas of greatest advantage: where sales volume is low enough to make mass production and distribution uneconomical, where adaptability and ability to give quick service are important, and where geographical location gives a small manufacturer a substantial cost advantage with customers located nearby.

Acquisition of new, more costly machinery and equipment represents an investment of long-term capital—the kind of financing most difficult for the small manufacturing concern to obtain. Equipment manufacturers sometimes may finance a small concern by leasing machinery or by permitting the concern to pay for machinery in installments. This results, however, in the small concern having heavy recurring fixed cash requirements and increases risk of failure if business declines.

Business cycle risks

Managers of small manufacturing concerns often face serious financial problems when the level of business declines. In some instances, because financing may have been difficult to obtain, small enterprises have expanded on an inadequate capital base. In other cases the problem is serious because management has not devoted enough attention to planning financial requirements—has not provided for adequate financing. In either case, there is likely to be a considerable dependence on short-term borrowing to supply needed capital.

During periods of reduced business activity, these concerns are particularly vulnerable to not being able to renew or extend loans. Lenders are conscious of risks involved in having loans outstanding to small companies in bad times. At the same time, many small enterprises do not have resources or reserve funds available to tide them over an extended period of reduced sales volume.

Because the small manufacturing enterprise frequently relies on a few important customers for sales and often customers in a limited geographical area, reduction in volume can be sharp and sudden.

In recent years, there has been a very decided trend toward diversification by American manufacturers in an effort to spread the risks of business fluctuations and to reduce dependence on one kind of business. The approach frequently followed, that of diversification through acquisition, has resulted in the purchase of numerous small concerns by large companies. In other instances, companies have diversified by introducing new product lines which resulted from research and development programs. Diversification offers the promise of increased stability of earnings although this promise has not been attained in all cases. For the most part, small manufacturing concerns have not diversified but have continued to specialize in a relatively limited number of associated or allied products. This is understandable as far as diversification through development and introduction of new product lines is concerned. However, it is possible that small enterprises could decrease the risks of specialization and of fluctuations in business activity by acquiring or merging with other small concerns.

When business declines, managers of small enterprises face very difficult personnel decisions. The manager knows that if he has to lay off personnel he may lose them and their training forever. Having a limited number of employees he quickly reaches the point where key personnel are involved. Further, the manager does not have the impersonality of big company management. He has a direct personal relationship with and feels a responsibility toward the employees he may have to discharge. At the same time he cannot afford to keep personnel on the payroll when there is nothing for them to do.

SUMMARY

It is understandable why many small manufacturing enterprises have difficulty obtaining financing. The characteristic combination of ownership and centralized direct management control found in small enterprise means that the time, energy, and attention of management are spread very thin. As a result, in many instances, problems do not receive enough consideration and study by management. Typically, managers of small concerns want to retain direct, personal control and to be succeeded by members of their family. This in turn makes it difficult for them to attract good second-line management, and risk from undermanagement and lack of qualified successors is increased.

Further, management's problems may be compounded by the disadvantages of small size in an economy characterized by mass production and distribution. In many industries, small enterprises are at a disadvantage with large competitors in marketing, introduction of new products, research and development, and purchasing. Even in

production, perhaps small enterprise's area of greatest strength, a small concern is at a disadvantage in those industries where mass production with specialized, automatic equipment is characteristic. Also, because of specialization, dependence on either a few customers or on a limited geographical market, and the sensitivity of lenders to the risks of small enterprise, a decline in general business activity creates more serious financial problems for managers of small than of large companies.

Thus, generally speaking, financing of small manufacturing enterprise offers greater and less assessable risks to lenders and investors than do many alternative investments. The most important factor affecting risk—managerial ability—is difficult to evaluate, particularly in new or rapidly expanding concerns where there is no record of performance to judge. Lenders and investors put great emphasis on a concern being well established and having a proven earning record extending over several years. Many small concerns cannot meet these requirements.

For all of these reasons, small enterprises generally cannot get financing on as favorable terms as large companies; in some cases funds may be unavailable or available only on terms which are unacceptable to management because of cost or of conflict with objectives. Further, while proven management ability demonstrated over several years of profitable operations is the basic criterion used by lenders and investors in making investment decisions, it is true that considerable weight is given to size. Lenders and investors tend to associate large size with security and small size with riskiness.

For example, there appears to be general agreement among investment bankers as to the minimum size required before an industrial company can obtain capital on reasonable terms from the securities market. One source sets a minimum size of at least $1 million net worth and at least $100,000 annual earnings after taxes.[2] A second source defines small business "not generally having access to the public market" as concerns having annual sales not in excess of $1 million and annual earnings before taxes not exceeding $150,000.[3] Further, investment bankers ordinarily will not undertake public issues of less than $500,000 to $1 million because it is difficult to establish and maintain a market for smaller issues.

Because small enterprises generally cannot obtain financing on as favorable terms as large companies, they are more dependent on earnings to finance expansion. For this reason, Federal corporate income taxes have limiting effects on the growth of small enterprises. It should be further noted that the Federal personal income tax law discourages the taking of risks involved in financing small enterprise. Even though a high return on investment may be justified by high risks, the "extra" return is subject to progressively higher tax rates. Thus, not only is there no preference given in tax laws to income from investments in small enterprise, but the taking of such risks is discouraged.

While these are typical obstacles to the financing of small manufacturing enterprises they obviously do not apply to all small manu-

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[2] George J. Leness et al., New Money for Business (McGraw-Hill, 1956), p. 5.
[3] Equity Capital for Small Business Corporations (memorandum prepared by Small Business Committee, Investment Bankers Association of America, August 1955), p. 5.

facturers. As has been dicussed, smaller concerns do have the advantages of greater flexibility and adaptability. They frequently are able to give quicker service and perform better on special orders than their larger competitors. Small concerns also may have an advantage over large ones when market demand is not great enough to permit mass production and distribution. Having less management, the small concerns may well have comparatively lower overhead costs than large companies.

Further, in many instances owenr-managers of small enterprises are willing to accept terms which provide for participation by lenders and investors in determination of policies, approval of major expenditures, and similar limitations on control, and such enterprises can and do obtain the financing they need. Some investors in high-income-tax brackets actively seek opportunities to invest in capital stock of small, rapidly growing enterprises. The potential appreciation over a period of time in market value of such stocks has great attraction since profit on the sale of the stock is taxed as a capital gain rather than as income.

In spite of the many obstacles they encounter, there are numerous successful small manufacturing enterprises in the United States. However, their success should be considered a tribute to the resourcefulness and ability of their management rather than evidence that there is no small financing problem.

16. STATE DEVELOPMENT CREDIT CORPORATIONS[1]

INTRODUCTION

State development credit corporations are unique private financial institutions with the public interest purpose of using financing to develop the economies of their States. They supply funds which the recipient concerns are unable to obtain from conventional financial sources. Other specialized organizations which have the same general developmental purpose include local or community industrial foundations and State credit authorities. The local foundations are generally also private institutions but have different organizations and operating methods.[2] State credit authorities differ from State development credit corporations in that they are public agencies which use public funds in their developmental work.[3]

This study analyzes State development credit corporations with special reference to small-business financing problems. It should be emphasized that this is not an appraisal of the effectiveness of development credit corporations in carrying out the main function for which they were especially chartered, that of developing the economies of their States. Most of the discussion here will center on the lending function. The credit corporations, however, view their activities as more than lending operations. Loans are looked upon as a development tool. For example, a credit corporation loan usually

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[1] By Paul S. Anderson, Federal Reserve Bank of Boston.

Paul S. Anderson, assistant financial economist, Federal Reserve Bank of Boston. Master of business administration, University of Minnesota, 1948; doctor of philosophy, University of Minnesota, 1957. Chief articles and publications: Master's thesis, Postwar Changes in Corporations' Financial Flows (a study of the effect of the repeal of the excess profits tax on corporate fund flows); doctor's thesis, Empirical Tests of the Acceleration Principle (a study of plant and equipment investment); Wartime and Postwar Credit Demands of Large Corporations, Federal Reserve Bulletin, July 1953, pp. 704–718; New England Institutional Investors Show Postwar Expansion in Assets an Employment, Federal Reserve Bank of Boston Monthly Review, February 1956; (with Paul B. Simpson) Liabilities of Business Failures as a Business Indicator, Review of Economics and Statistics, May 1957, pp. 193–199.

[2] Several thousand communities in the Nation have formed local industrial development groups to expand and diversify employment opportunities in the community. Their activities include constructing and buying industrial plants for lease or sale, buying and developing industrial sites for sale at or near cost to industry, making loans and investments in manufacturing concerns, gathering and dessiminating economic data for the area, providing counseling services, and acting as intermediaries between industry desiring funds and financing agencies. Their chief efforts go toward aiding new industries to move into the community, but they also aid existing local concerns, many of which are small, to expand and help new firms get started. The Office of Area Development of the United States Department of Commerce is preparing for publication an extensive report on community industrial development corporations and foundations.

A large part of the funds of foundations are obtained through sales of capital stock; other sources include donations, municipal grants, and borrowing. The funds are used mainly in the preparation of suitable facilities for lease to industrial concerns. Most of the businesses being aided would be classified as small businesses, but frequently the incoming unit is a branch of a large manufacturing corporation.

In the New England States, several of these local foundations have borrowed funds from State development credit corporations. A typical financing pattern is for the local foundation to supply the "bottom" 20 percent of the cost of a plant in the community and take the ownership position, the State credit corporation supplies the next 20 to 30 percent on a second mortgage while an insurance company or bank supplies 50 to 60 percent on a first mortgage. A working capital loan may also be supplied by a bank.

[3] Four States, New Hampshire, Pennsylvania, Maine, and Arkansas, as well as Puerto Rico, have recently passed laws establishing State credit authorities, which use State funds to promote industrial development. The funds may be used in various ways, depending on the specific statute: to construct industrial parks, to lend money to local industrial foundations which are planning to build industrial facilities, to insure mortgages of local industrial funds up to 90 percent of project costs, and also to buy bonds of State development credit corporations.

brings forth other funds from conventional sources so the development benefit is viewed as multiplied. In addition, a loan is a way of directing management counsel to businesses which may be having mangement difficulties but which would not seek managerial aid directly. Finally, a business showing promise may be able to grow faster with the aid of the additional funds and contribute more to the State's economy.

Fourteen States have passed legislation authorizing development credit corporations. This analysis will be based almost entirely on the experiences of the five active New England corporations. These have been in operation the longest. Available information on the New York and North Carolina credit corporations indicates that their operating patterns are quite similar to those of the New England corporations.

GENERAL BACKGROUND

State development credit corporations were established primarily for the purpose of aiding the States' economies by increasing employment through the developmental use of a specially created pool of private funds.[4] Financing of small business is not an explicit aim of these corporations, but most of their financial aid has gone to the smaller businesses, in part because they are the concerns that are most likely to seek the type of financial assistance offered.

The first State development credit corporation was organized in Maine in 1949. In following years, corporations were organized in other New England States—New Hampshire in 1951, and Massachusetts, Connecticut, and Rhode Island in 1953. The New York and North Carolina corporations were chartered in 1955. In all, about 28 States have taken some action with respect to such organizations. A listing may be found in appendix A.

The active corporations have very similar organizational structures. They are chartered by special acts of the State legislatures which give them their powers, enable State regulated financial institutions to become members, and grant exemption from State income taxation. After organization, capital stock is sold, mainly to nonfinancial institutions and individuals. This capital serves the usual function of an equity base and also provides loan funds to the corporations. The second and major source of funds is loans from financial institutions which become members. Membership involves pledging lines of credit to these corporations, with the amount of the line determined by the member's capital or similar amounts such as reserves. Commercial banks, for example, pledge themselves to make loans on call up to 2 or 2½ percent of capital and surplus.

[4] The charter of the Massachusetts corporation states: "The purposes of the corporation shall be to promote, stimulate, develop, and advance the business prosperity and economic welfare of the Commonwealth of Massachusetts and its citizens; to encourage and assist through loans, investments, or other business transactions, in the location of new business and industry in this Commonwealth and to rehabilitate and assist existing business and industry; and so to stimulate and assist in the expansion of all kinds of business activity which will tend to promote the business development and maintain the economic stability of this Commonwealth, provide maximum opportunities for employment, encourage thrift, and improve the standard of living of the citizens of this Commonwealth; similarly, to corporate and act in conjunction with other organizations, public or private, in the promotion and advancement of industrial, commercial, agricultrual, and recreational developments in this Commonwealth; and to provide financing for the promotion, development, and conduct of all kinds of business activity in this Commonwealth."

As the corporation makes loans, it calls on members for funds. Most corporations have a legal or self-imposed ratio of borrowings to capital funds of about 8 to 1. At the end of 1957, the 5 New England development credit corporations had 310 members with lines of credit pledged to a total of $16.8 million.

Directors are elected by the stockholders and members (creditors) with members generally choosing two-thirds of the total. The directors elect officers. The chief administrative officer may be a president, vice president, or manager. The organizational structure of credit corporations allows them a great deal of flexibility in meeting new problems and in responding to variations in local and regional needs.

Up to December 31, 1957, the 5 New England corporations had extended about 230 loans totaling $14 million. Outstanding loans at year end were $8.7 million. About one-fourth of the loans have been repaid in full. Four of the New England development credit corporations have shown modest operating book profits. In all these instances, the entire profit has been allocated to the reserve for bad debts. Five loan losses totaling about $70,000 have occurred, 4 of them during 1957. The loss ratio is only 0.5 percent, but favorable economic conditions have generally prevailed since these corporations were set up, so this loss ratio should not be considered indicative of future prospects. Organizational and operational data for the five New England corporations, as well as for the New York corporation, are summarized in appendix B.

While State development credit corporations have the organizational structure of profitmaking corporations, they are more accurately described as nonprofit institutions. Dividends are allowed by the charters, but none are currently contemplated and stock purchases are considered donations rather than investments. The member financial institutions donate free services and make credit extensions at less than market rates. While profits are not a goal, credit corporations strive to have operating income cover their lower than strictly competitive costs so that the safety margin of capital is not diminished.

CHARACTERISTICS OF BORROWERS

A business concern may formally apply for a credit corporation loan only if it cannot obtain enough credit from conventional sources, which in practice usually means commercial banks. Most applicants could have obtained a certain amount of credit from conventional sources, and in many cases have done so, but there must be evidence of a rejection by conventional sources of the loan which is requested from the credit corporation. While most credits granted by these corporations are undersecured according to conventional standards, the borrower himself may be "A–1" for another amount or type of loan.

For descriptive purposes, concerns borrowing from credit corporations can generally be placed in 1 of 3 broad categories. The first consists of those concerns which are profitable, have good prospects, and are planning to expand. To obtain the type of facilities which would accommodate the volume of operations they hope to achieve, they need more financing than they can obtain from conventional sources. The second general category includes concerns which will begin operations in a community if there are suitable plant facilities. Credit corporations will often grant credit to provide the facilities

in such cases if the area has surplus labor. Frequently such credit is extended in conjunction with a local industrial foundation. A third category of borrowers includes concerns in a marginal status which will probably discontinue operations unless they are strengthened. Credit corporations assist such concerns if there is a prospect that the additional funds will put the concern into a sustainable operating position.

The substandard characteristics of typical borrowers from credit corporations can be described by use of the conventional loaning terminology of the three "c's"—character (moral reputation of the borrower); capacity (experience, know-how, and earnings ability of the borrower); and capital (ability to provide asset protection in the form of adequate collateral). A credit corporation borrower must have a reputation for character and honesty and meet bank standards in this respect. He is not required, however, to meet bank standards with regard to earnings ability or with regard to capital and collateral.

Overall earnings records of credit corporation borrowers are not available. Some indication of their capital adequacy is suggested by the collateral underlying the loans they have obtained as shown in table 1. The fairly extensive use of second mortgage collateral is the most striking departure from the collateral arrangements usually used in bank lending. National bank laws, for example, do not allow second mortgage loans. In many cases, moreover, the first mortgage collateral is on old property and would probably not meet bank standards. In addition, loans may be made on first mortgages up to 80 or 90 percent of market value of the security, well above the loan percentage granted on commercial property by commercial banks. Machinery and equipment are used by banks as loan collateral but credit corporations may grant a larger loan against the same collateral than banks would. In addition, equipment loans of the corporations generally carry longer maturities than do similar bank loans.

TABLE 1.—*Outstanding loans, by type of security, Sept. 30, 1957, New England credit corporations*

	Amount (thousands of dollars)	Percentage distribution
First mortgage	2,893	34.3
Second mortgage	1,858	22.0
Total mortgages	4,751	56.3
Machinery and equipment	3,182	37.8
Promise of nonpledge of any assets for other loans	400	4.7
Inventories	48	.6
Life insurance	27	.3
Unsecured	22	.3
Total loans	8,430	100.0

Source: Federal Reserve Bank of Boston.

Undercapitalization of credit corporation borrowers seems quite clearly indicated by the loan collateral listing. The use of second mortgages as well as first mortgages on depreciated properties suggests that capital or net worth, the margin between asset value and debt, is thin. The duration of the undercapitalization, whether it has always been characteristic of the concern, or has been caused by a succession of losses, or has resulted from one misfortune of an accidental

nature, cannot be determined, however, without individual firm studies. In some cases undercapitalization apparently resulted from a concern's desire to expand more rapidly than it could build up its capital base.

A concern's problems of undercapitalization and low earnings ability are generally not remedied quickly. Progress toward a more adequate capital base, especially, takes time since it depends mainly on retained earnings. Consequently, funds which are intended to assist the concern in strengthening its capital and operating positions should be available for a long period. Short-term funds may enable the borrower to meet specific crises, but at repayment its basic position would probably be much the same as before the loan.

Credit corporations provide loans for fairly long terms. Less than 10 percent of the number and amount of loans of New England credit corporations are for less than 5 years (table 2). Most loans fall in the 6- to 10-year maturity range.

TABLE 2.—*Loans outstanding by original maturity, Dec. 31, 1957, New England credit corporations*

Original maturity	Number		Amount	
	Actual	Percentage distribution	Actual (thousands of dollars)	Percentage distribution
Under 5 years	15	9.0	640	7.4
5 years	46	27.5	2,324	26.7
6 to 10 years	92	55.1	5,065	58.2
Over 10 years	14	8.4	674	7.7
All maturities	167	100.0	8,703	100.0

Source: Federal Reserve Bank of Boston.

Almost all credit corporation borrowers are manufacturers. This reflects the view that the income generation of such corporations will contribute most to economic activity in the region. The loans are widely distributed among manufacturing groups, as shown in table 3.

TABLE 3.—*Loans approved to Dec. 31, 1957, by industry, New England development credit corporations*

[Dollars in thousands]

Industry	Number	Amount
Manufacturing:		
Fabricated metals	33	$2,977
Machinery	25	1,375
Textiles	25	1,359
Lumber	24	435
Leather	20	1,387
Chemicals	20	1,188
Food	19	2,243
Paper (including containers)	16	1,625
Electrical machinery and instruments	16	1,273
Printing	10	1,275
Multipurpose industrial parks	7	1,825
Furniture	7	286
Primary metals	5	895
Apparel	5	91
All other	21	900
Total manufacturing	253	18,843
Nonmanufacturing	10	427
All industries	263	19,270

Source: Federal Reserve Bank of Boston.

Credit corporation borrowers tend to be among the larger small businesses. Table 4 shows the percentage distributions, by employment size, of borrowers from the five credit corporations in Maine, New Hampshire, Massachusetts, Rhode Island, and Connecticut, and of manufacturing establishments in the same States. While half of the manufacturing establishments in these States are in the 0 to 9 employees size group, less than a fifth of credit corporation loans are to concerns of this size. On the other hand, although only about one-fifth of the manufacturing establishments have 50 or more employees, nearly one-half of credit corporation loans have gone to concerns in this size group. Other aspects of borrower size will be analyzed further in subsequent sections.

TABLE 4.—*Distribution of borrowers from development credit corporations and of all manufacturing establishments in New England, by employee size*

[Percent]

Number of employees	Borrowers from development credit corporations to June 30, 1957	All manufacturing establishments in New England, 1954 [1]
0 to 9	18	51
10 to 19	16	14
20 to 49	19	15
50 to 99	21	8
100 to 249	14	7
250 and over	12	5
All sizes	100	100

[1] Excluding Vermont, which had no credit corporation on June 30, 1957.

Source: Federal Reserve Bank of Boston and U. S. Census Bureau, Census of Manufacturing, 1954.

Among other characteristics, about 10 percent of borrowers from New England credit corporations were relocating from outside the State, 7 percent were new businesses, and 5 percent were manufacturing products which would be considered new or innovational. All these percentages probably are higher than the percentages of such types of concerns to the total business population. Most of the borrowers—19 out of the New England total of 27—relocating from outside the State were in New Hampshire and Maine. Since 1950 these two States have had unemployment rates well above those of other New England States and the Nation. In addition, they have had manufacturing facilities available as a result of the closing of textile mills. Credit corporation loans were a factor in the utilization of this surplus labor and plant space.

ANALYSIS OF OPERATING DETAILS

Credit corporations have developed their own special operating procedures. Their experience sheds light on the general problems of extending credit to small borrowers, including those falling into the substandard category.

The New England credit corporations have small staffs, ranging from only 2 in New Hampshire to 5 in Massachusetts. Many of the necessary operations of these corporations are performed without cost by stockholders, members (creditors), and others. These corpora-

tions were begun by vounteers and organizational expenses were kept at a minimum. When financial institutions join the corporations as members, they automatically grant lines of credit so there is little expense in arranging for funds.

The credit corporations do not have advertising budgets. They depend on referrals by banks for most of their business. Free publicity from newspapers, business publications, and other sources also encourages applications.

Upon receiving an application, the staff of the credit corporation makes a credit investigation. Very likely they will receive free assistance in the investigation from bank members. If the application appears to have merit, it is referred to the board of directors or loan committee which serves without fee.

Despite such "outside" help, credit corporations have not handled a large number of loans. Volume operations are not possible because every credit corporation loan is a special situation. A loan "deal" often involves a financing package which includes a senior loan from a bank or insurance company and negotiations necessarily are time consuming. In addition, the rejection rate is high with over half of formal loan applications turned down.

Since credit corporations cannot engage in volume operations, as can a mortgage or consumer loan department in a commercial bank, they must keep their average loan size fairly large if interest income is to cover their lower than strictly competitive, operating costs. Loans made by the 5 New England corporations up to June 30, 1957 averaged $77,000. In comparison, the loans of first district member banks to manufacturers outstanding on October 16, 1957, averaged only $47,000 according to a recent business loan survey made by the Federal Reserve System. While the commercial banks make much larger loans than do credit corporations, they also make many small loans (table 5). Loans by the Federal Small Business Administration to New England manufacturers have about the same size distribution as credit corporation loans. First district member bank loans show a heavy concentration, by number, in the smallest size group.

TABLE 5.—*Loans to manufacturers in New England, by size, development credit corporations, Small Business Administration, and 1st district member banks*

[Percentage distribution of number of loans]

Amount of loan (in thousands of dollars)	Loans made		Loans outstanding, 1st district member banks, Oct. 16, 1957
	Development credit corporations, 1949–57	Small Business Administration, 1953–57	
0 to 9.9	15	13	53
10 to 24.9	26	29	19
25 to 49.9	20	24	12
50 to 99.9	20	22	7
100 to 249.9	14	10	3
250 and over	5	2	6
All sizes	100	100	100

Source: Federal Reserve Bank of Boston, Small Business Administration.

A more direct picture of the limits within which credit corporations operate is given by their income statements. Shown in table 6 are comparative 1957 income statements for the five New England corporations, with the income and expense items shown as percentages of the average amount of outstanding loans during 1957.

TABLE 6.—*Ratio of income and expense items to adverage outstanding loans, 1957, New England credit corporations*

[Percent]

Item	Maine	New Hampshire	Massachusetts	Rhode Island [1]	Connecticut
Income from interest and fees	6.2	6.6	6.4	6.6	7.1
Interest expense	1.9	1.9	3.4	4.5	3.3
Net interest income	4.3	4.7	3.0	2.1	3.8
Operating expense	1.9	1.8	1.4	6.2	2.1
Net operating income	2.4	2.9	1.6	−4.1	1.7

[1] Year ending Apr. 30, 1957.

Source: Federal Reserve Bank of Boston.

Income as a percentage of average outstanding loans varied little, ranging from 6.2 percent in Maine and New Hampshire to 7.1 percent in Connecticut. Most of these corporations began with a flat 6-percent lending rate, but have raised it either by adding a 1-percent service charge for the first year or by specifying a set spread of 2 to 3 percent between the rate charged on loans and the prime rate. The Rhode Island corporation has a flexible rate, and the maximum thus far has been 12 percent.

Interest expense as a percentage of outstanding loans varied widely, reflecting differences in rates paid on borrowing from members, in ratios of borrowed to total funds, and in ratios of outstanding loans to borrowings. Loan funds, however, are generally obtained at below-market rates of interest. Credit corporations paid a flat 2 percent on borrowed funds in Maine and New Hampshire, a negotiated rate approximately equal to the prime rate in Rhode Island and Connecticut, and a rate one-fourth of a percentage point above the prime rate in Massachusetts. Very recently, the board of directors of the Connecticut corporation lowered the rate paid on borrowed funds to a level one-half of a percentage point above the Federal Reserve discount rate. The Rhode Island corporation had a high interest cost because it used part of its own funds for constructing plants for future sale or lease.

Variations in interest-cost rates were reflected in net interest income, the amount available to cover operating expenses. Net interest income as a percentage of outstanding loans was highest in New Hampshire and Maine, with 4.7 and 4.3 percent, where interest costs were lowest.

Except for Rhode Island, operating-expense rates varied from 1.4 to 2.1 percent. As would be expected, operating-expense rates were associated with average loan sizes—the Massachusetts corporation had the lowest operating-expense rate, 1.4 percent, and the highest average loan made, $143,000; in other States, except for Rhode Island, loans made averaged about $33,000 and expense rates averaged 1.9 percent.

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Despite some free services available to them, lending costs of credit corporations are higher than those of conventional financial institutions because most of their loans are problem cases. Commercial banks usually consider about 0.5 percent as the average lending cost for business loans. Insured mutual savings banks, whose mortgage loans are almost all small, had a total operating-expense rate of only 0.7 percent of earnings assets in 1956, and this includes the cost of servicing savings accounts.[5]

The operating positions of all corporations except Rhode Island improved in 1957 as compared to 1956. The other four corporations had net operating incomes in 1957, and it is anticipated that the full amounts will be added to reserves for bad debts. These corporations intend to build up their tax-free reserves to at least 20 percent of outstanding loans. At present, these reserves vary from less than 1 to 4 percent of outstanding loans.

PROBLEMS OF DEVELOPMENT CREDIT CORPORATIONS

The development credit corporation in its charter is given the unique function of using a pool of funds to stimulate a State's economic prosperity. It is entrusted with "seed" money to encourage other investors. With careful management, the original funds are expected to expand to a sizable revolving fund for continued reinvestment.

In this process, the corporations are challenged to allocate their resources among competing needs. The problems of allocation involve decisions on which use of funds will create the most employment and which borrowers to aid first. The problems of management include questions of how much interest they should charge borrowers and how much interest they should pay their members. If the corporations prove successful, they are then faced with the problem of enlarging the funds available for further economic development efforts.

Effective use of funds

State development credit corporations can stimulate employment in at least four different ways. They may buy stock in small and new businesses (although this is prohibited by some charters). They may make long-term loans on risky collateral. They may build or buy property to be leased or sold to businesses whose operation would create jobs. They may provide funds to other development groups to use in their development programs.

So far, purchase of stock has been avoided because the corporations' funds would be tied up with no dependable cash inflow or turnover. Direct investment in property for sale or lease has been made sparingly. While the credit corporations have worked closely with other development agencies, they have generally found it desirable to make any financing arrangements directly with the borrower.

The great preponderance of credit corporation activity has been in long-term loans to manufacturers. In some instances the special circumstances of a specific community or the program of a local development group have led to loans to nonmanufacturing concerns, but these have been exceptions. The boards of directors have decided that financing should concentrate on manufacturing activities. At a later

[5] U. S. Federal Deposit Insurance Corporation, Annual Report, 1956, pp. 138–139.

date, the corporations may well turn to financing other employment-creating activities. At present, however, the directors feel that the number of jobs created or saved is largest if the loan is to a manufacturer. As shown in table 2, most loans have gone to manufacturers in light industries rather than to those where a large fixed investment is required.

Credit corporations have not directed their lending toward any particular sized business. While most of their borrowers would be classified as small businesses, they are among the larger concerns in the small-business population. This may be a result of the desire to promote as large an additional amount of employment as possible by use of loans. As shown in table 7, the ratio of jobs to loans is significantly higher for the larger loans. Although this does not prove that the larger loans created or saved more jobs than the smaller loans such a possibility seems likely.

TABLE 7.—*Comparison of size of borrower and size of loan, New England development credit corporations* [1]

Borrower size (number of employees)	Averages per borrower		Number of employees per $10,000 of loan [2]
	Estimated number of employees	Amount of loan (thousands of dollars)	
	(1)	(2)	(3)
0 to 9	4	19	2
10 to 19	14	26	5
20 to 49	32	42	8
50 to 99	70	81	9
100 to 249	160	102	16
250 and over	[3]	225	[3]

[1] All concerns receiving loans to June 30, 1957.
[2] Col. (1) divided by col. (2), multiplied by 10,000.
[3] Average number of employees cannot be estimated.

Source: Federal Reserve Bank of Boston.

Operating expenses as a percentage of loans increase as loan sizes decrease. A significant move toward smaller loans would adversely affect the income of these corporations. This could be counteracted, of course, by charging a higher rate on such loans.

Interest rates

The important question of what rates should be charged borrowers continually confronts credit corporations as it must arise for any privately financed agency operating in the marginal credit area. There are two aspects to this question. On the one hand is the question of whether the rates being charged by the credit corporations fit into the pattern of interest rates developed by the free operation of our economy. On the other hand is the question of whether lending rates are high enough in relation to borrowing costs to provide an operating margin broad enough to support the corporation's activities.

One standard for an appropriate interest rate is that every business operation should "pay its own way." Credit corporations have generally covered their operating costs but they have had some free services provided to them and they have not met the going market rates with regard to borrowing from member institutions and returns on capital

stock. Borrowing rates on risks comparable to credit corporations would exceed the prime rate, probably by 1 or 2 percentage points at the minimum. No return has yet been paid to stockholders of credit corporations and there is little likelihood of dividends in the future. Therefore, according to the full-cost principle, credit corporation lending rates should be higher than at present.

How does the 6- or 7-percent rate paid by borrowers from credit corporations compare with rates paid by borrowers from other institutions? According to business loan surveys, commercial banks charge rates substantially exceeding 6 or 7 percent to borrowers whose credit ratings almost by definition are higher than those of credit corporation borrowers. Some banks have set up small-business loan sections in their installment loan departments and charge discount rates of 5 or 6 percent, or about 10 or 12 percent simple interest annually. Commercial finance companies, which lend predominantly to small manufacturers and wholesalers, but usually make short-term advances on accounts receivable or equipment loans up to 5 years, charge rates of 12 to 14 percent, and even 24 percent, annually. While part of this charge represents investigating and processing costs, especially on accounts-receivable loans, part represents risk and servicing costs.

Another approach in making comparisons is to consider credit corporation loans as partly equity and partly loaned funds. This is appropriate, since their borrowers generally lack adequate capital and thus credit corporation funds substitute for the capital deficiency. Among large industrial corporations, equity accounts for at least three-fourths of total long-term funds, and borrowing for only one-fourth.[6] Equity funds through stock sales cost from 12 to 16 percent before taxes—the after-tax earnings-price ratio is 6 to 8 percent—while borrowed funds (Aaa bonds) cost 4 to 5 percent, again before taxes. Thus a representative slice of long-term outside funds (three-fourths stock and one-fourth bonds) costs from 10 to 13 percent. Even if a 50–50 equity-to-debt ratio is used, the average cost is still 8 to 10 percent. For smaller corporations, such costs would be substantially higher.

Finally, there is a broader aspect of the rate problem which is connected with the working of a free economic system. Loanable funds are a scarce resource, and in a free competitive economy they are allocated according to yield in relation to safety. The highest yield can be bid by borrowers who can make the most effective use of the funds. Funds, and the resources they represent, put to one use are removed from some other use. For example, when the Government borrows from banks and the capital market and uses the funds for, say, small business financing, some other potential borrowers in the economy are denied the use of these funds.

In an expanding economy such as the United States, a credit rationing device in the form of interest costs that cuts off some would-be borrowers is an essential part of our free-enterprise system. Variations from the market-determined pattern of interest rates interfere with the operations of a free-enterprise system.

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[6] Computed from composite balance sheet in Financing of Large Corporations, 1951–55, Federal Reserve Bulletin, June 1956, p. 586.

While the case for unsubsidized rates for credit corporations is strong, obstacles are encountered in actual application. There is some feeling that loan rates should not go much above 6 percent; certain State laws reflect this feeling. In 1949 and 1953, when the credit corporations commenced operations, a 6-percent rate was relatively higher in relation to comparable rates than at present. In addition, credit corporations operate in the same area as the Small Business Administration which lends at 5½ to 6 percent.

Most credit corporations have exceeded the traditional 6-percent ceiling on loans although some have done it indirectly by adding a 1-percent service charge the first year. The Rhode Island corporation, whose rates vary with specific cases, has found some borrowers quite willing to place subordinated debentures at 12 percent. Some other corporations sell capital stock of their corporations to the borrower, whenever possible, as part of the lending operation, and this in effect represents a higher lending rate. There appears to be little problem in acceptance by borrowers of some upward flexibility in rates.

A rather modest increase in lending rates of credit corporations would improve their operating positions substantially. For most corporations, net interest income, which is income less borrowing cost, ranges from 3 to 5 percent of loaned funds. A 1 percentage point rise in lending rates would increase net interest income by about one-fourth. The additional income would be most helpful for expanding operations, for increasing reserves, or for attracting additional funds.

An alternative technique of expanding the operating margin is to increase the subsidy element by lowering the interest rates paid on credit corporation borrowings. The reflect the public-interest nature of their support of development credit corporations, the member institutions in Connecticut and New York have recently accepted lower rates on their loans to the credit corporations. The New York corporation lowered its interest cost on borrowed funds from 4½ to 3½ percent. The Connecticut corporation lowered its cost from the then-existing prime rate of 4½ to a level one-half percentage point above the Federal Reserve discount rate, making the current (March 1958) borrowing rate 2¾ percent.

The interest rate problem is obviously a difficult one. The appropriate lending rate may evolve in time out of the operating experience of credit corporations. An adequate lending rate would reduce the subsidy element in making funds available to marginal borrowers.

Increasing financial resources

Funds available to credit corporations may be limited by an inadequacy of either capital or credit. Usually a ratio of about 1 to 8 is maintained between capital accounts and borrowings from member institutions. There has as yet been no shortage of borrowed funds for the New England corporations. Several corporations cannot utilize their pledged lines of credit fully, however, because of insufficient capital funds, since borrowed funds already are about eight times capital and surplus. In these cases, further expansion depends on additional sales of capital stock, which is probably the chief immediate problem facing these credit corporations.

In general, future growth depends on availability of additional capital and larger pledged lines of credit. As these corporations are now

operated, funds cannot be attracted by dividend payments or increased interest rates. Therefore, these corporations have to depend on their ability to obtain increased support on the basis of the public interest nature of their activities.

Current and potential membership is shown in table 8. Commercial banks have the highest percentage of potential membership—55 percent by number and 73 percent by amount of credit lines. Most of the larger commercial banks are members. The membership percentages are quite low in the cases of savings banks and insurance companies. Part of the difficulty in enrolling insurance companies has been their feeling that they are nationwide, rather than statewide institutions.

TABLE 8.—*Actual and potential membership of New England development credit corporations, Dec. 31, 1957*

Type of institution	Number of members			Credit line pledged		
	Potential [1]	Actual	Actual as percentage of potential	Potential [1]	Actual	Actual as percentage of potential
				Thousands	*Thousands*	
Commercial banks	378	209	55	$14,183	$10,351	73
Savings banks	342	77	23	8,881	2,541	29
Insurance companies	77	15	19	15,116	3,819	25
All other institutions	245	9	4	164	76	4
All eligible institutions	1,042	310	30	38,344	16,787	43

[1] Partly estimated.

Source: Federal Reserve Bank of Boston.

While the potential number of additional members is large, the actual increase in the last several years has been fairly small. The New England corporations had a net increase of only 12 members—from 298 to 310—in the 2 years ended December 31, 1957.

Other possible methods for raising funds for new loans include retaining net operating profits in the form of reserves for bad debts and selling seasoned loans to bank. The borrowers who had experienced an improvement in their financial position could, perhaps, take the initiative themselves in transferring their loans to a conventional source if there were a sufficient inducement to having through lower interest rates. Some credit croporations have been able to add to their capital base by selling stock to borrowers which, in effect, is equivalent to a loan discount. Another prospective source of funds employed at times is to take options on the borrower's stock, thus recognizing the fact that credit corporations are supplying funds of a near-equity nature at low rates. It is questionable, however, whether such options would bring forth appreciable returns.

EVALUATION

Development credit corporations have extended intermediate- and long-term credit to small manufacturing businesses on a somewhat more risky basis than conventional lenders. Their experience has not yet been long enough to justify any firm conclusions regarding the size and structure of credit needs toward which they are oriented or the

future of the credit corporations, but it does suggest the following observations.

Long-term credit to smaller concerns appears to be considered inherently more risky than short-term credit. This is indicated by a comparison of typical collateral arrangements for short- and long-term loans. Commercial credit companies grant short-term loans to marginal borrowers up to 80 percent or more of collateralized accounts receivable, when banks make long-term loans of only 50 to 60 percent of market value on a good quality first mortgage to a standard borrower. In seeking to extend their operations into the area of equity capital, credit corporations make long-term loans secured by second mortgages.

Experience is still too short to permit a judgment as to the extent of the demand for the type of credit provided by the credit corporations, even with costs reduced by a certain amount of indirect subsidy. It is even more difficult to judge how much of the demand for credit is supported by willingness and ability to pay total economic costs because rates the corporations charge currently do not cover all such costs.

The volume of lending by credit corporations has not been large in absolute terms. On December 31, 1957, outstanding loans of the five New England corporations totaled $8.7 million. While it must be emphasized that these loans are primarily to manufacturers, the total amount is small when compared to the $414 million in small business loans to commercial and industrial firms by first district member banks as of October 16, 1957, according to a Federal Reserve business loan survey. Thus credit corporation loans in the region are equivalent to only about 2 percent of small-business loans of commercial banks and the ratio would be smaller if all sources of small-business credit were taken into account. While contribution to small-business financing of this magnitude seems small, it may be a quite important amount at the credit margin. Moreover, lending activities of the credit corporations are expanding rapidly—total loans outstanding rose by almost one-fourth in 1957, although potential growth is limited if funds continue to be sought on the present basis. Outstanding business loans of the Small Business Administration in New England outside Vermont were even somewhat smaller—$8.1 million as of June 30, 1957—than those of the 5 credit corporations.

Credit corporations have resulted from efforts of private institutions and individuals to cooperate in the performance of a credit function. The continuance of such cooperation is an important factor in the day-to-day operation of credit corporations. The local representation provided by commercial banks is especially necessary in directing funds to the best uses.

State development credit corporations are young among financial institutions and they are still in an experimental stage. Some changes in operating methods are to be expected as additional experience is gained and as conditions change.

APPENDIX A.—*Status of State development credit corporations*

Name of organization and legal citation	Authorized capital	Number of stockholders	Number of institutional members	Pledged loan potential (thousands)	Outstanding stock and limitation on commitments	Loans				Remarks	Date of data
						Applied for		Approved			
						Number	Amount (thousands)	Number	Amount (thousands)		
Development Credit Corporation of Maine, Maine Laws, 1949, R and S, ch. 104, p. 805.	$150,000 in 1,500 shares of $100-par common. Original law specified 500 shares, but was later amended.	97	48	$938	$82,800 stock sold. 2½ percent of capital and surplus of member commercial banks, trust and insurance companies; 2½ percent of reserve funds of savings banks; 2½ percent of guaranty funds of loan and building associations; comparable limits for other banking institutions.	238	$4,675	71	$1,879	Has suffered 3 losses totaling $22,913.	June 30, 1957
New Hampshire Business Development Corp., Engrossed house bill 417, New Hampshire Laws, July 1951, ch. 328, p. 792.	1,000 shares of no-par common at $100 per share.	214	85	1,252	$103,700 stock sold. Member institutions may commit no more than 2½ percent of their capital and surplus (or similar funds) to the corporation.	89	2,422	46	1,102	.....	Do.
Massachusetts Business Development Corp., Massachusetts Resolves, July 3, 1953, ch. 671.	4 million shares of $1-par common (selling at $10).	236	133	10,577	$763,510 stock sold. 8 times outstanding stock or $32 million whichever is less. Limit on individual institutional members is based on a table of maximums ranging from a high of 2 percent of capital and surplus of commercial banks to a low of 0.1 to 1 percent of assets of fire insurance companies.	204	20,368	94	13,409	.....	Do.
Connecticut Development Credit Corp., Special Act 407 (house bill 312) of 1953.	5,000 shares of no-par common at $100 per share; has issued $126,700 in stock.	98	26	1,805	$126,700 stock sold. Member commercial banks, insurance and trust companies, 2½ percent of capital and surplus;	172	10,799	34	1,607	Suffered 1 loss of $17,536.	Do.

See footnotes at end of table.

	has issued $120,700 in stock.				companies, 2½ percent of capital and surplus; building and loan associations, 2½ percent of guaranty funds.						
Rhode Island Development Co., ch. 3045 (H. 577) of Feb. 11, 1953, Rhode Island and Providence Plantation Laws.	200,000 shares of $1-par common plus such additional shares of any class that stockholders may choose.	18	13	152	$1,657,000 pledged. Institutional members may commit up to 2½ percent of capital and surplus (or similar funds). Total outstanding at any one time may not exceed total pledged.	96	5,208	21	1,169	----------	Do.
Business Development Corporation of North Carolina, ch. 1146, Session Laws of 1955 (act permits formation of one or more corporations).	100,000 shares of $10 par common.	1,831	[1] 85	4,326	$1,000,000 stock sold. 10 times paid-in capital stock. Limit on individual institutional members is based on table, ranging from high of 2 percent of capital and surplus of commercial banks and trust companies to a low of 0.1 of 1 percent of assets of fire insurance companies. $4,326,000 pledged.	[2] 86	(3)	32	[4] 1,898	----------	Do.
New York Business Development Corp., Ch. 863, Statutes of New York, Apr. 29, 1955, being an amendment—to be known as Art. V-A—to the banking law.	20,000 shares of no-par common selling at $100 per share.	51	179	12,711	$429,900 stock sold. At no time to exceed 10 times capital and surplus or $50,000,000, whichever is greater. Member institutions may commit no more than 2 percent of their capital and surplus (or similar funds) to the corporation.	129	16,512	43	4,207	Many loan applications have been picked up by institutional members for their own accounts.	Do.
Vermont Development Credit Corp., act 151 (S. 62) and amendments of secs. 8760 and 8763, Vermont Statutes, Apr. 28, 1953.	Unlimited and variable; set by commissioner of banking; board of directors determines stock provisions.	95	0	0	$47,000 stock sold. "2½ percent of the capital accounts of any one bank."	0	0	0	0	(1) Banks may purchase stock. (2) Corporation activated in 1955; opened for business summer of 1957.	Sept. 12, 1957
Kansas Development Credit Corp., ch. 144, Session Laws of 1955 (S. B. 275) (law permits formation of one or more).	Must have a minimum of $25,000 to begin business.	(3)	(3)	(3)	3 percent of capital and surplus of member commercial banks and trust companies; comparable limits for other banking institutions.	2	(3)	0	0	One group formed in March 1957 is now beginning operations in north central Kansas; 2 others are being organized.	Mar. —, 1957

See footnotes at end of table.

See footnotes on p. 353.

APPENDIX A.—*Status of State development credit corporations*—Continued

Name of organization and legal citation	Authorized capital	Number of stockholders	Number of institutional members	Pledged loan potential (thousands)	Outstanding stock and limitation on commitments	Loans				Remarks	Date of data
						Applied for		Approved			
						Number	Amount (thousands)	Number	Amount (thousands)		
Wisconsin Industrial Development Credit Corp., ch. 255, Laws of Wisconsin 1955 Legislature.	1,000 shares $100 par common.	75	52	250	$14,100 stock sold. Banks and trust companies 1 percent of capital and surplus; insurance companies 0.3 of 1 percent of admitted assets.	0	0	0	0	Institutional members have 1 vote for $1,000 pledge. Stockholders must live in 36 counties. Will open for business about Nov. 18, 1957.	Nov. —, 1957
Michigan Development Credit Corp., Act 138 of 1956 as amended by enrolled house bill 174, session of 1957 (Law permits formation of 1 or more).	Unlimited. Must have issued $100,000 in capital stock to begin business.	(3)	(3)	0	2½ percent of capital and surplus or similar funds of institutional members.	0	0	0	0	Has not yet been formally organized.	Aug. 19, 1957
Minnesota Business Development Corp., Minnesota Laws, Sept. 26, 1957.	20,000 shares of no-par common, selling at $50; 25 percent sold before corporation may begin business.	0	0	0	10 times paid in capital and surplus.	0	0	0	0	Deferring sale of stock until SEC clearance to sell to "foreign" corporations has been secured.	Oct. 28, 1957
South Dakota Business Development Credit Corp., bill 324 of 1957 session. (Law permits formation of one or more corporations).	To be specified in bylaws. 25 percent must be paid in before corporation begins operation.	0	0	0	Articles of incorporation govern.	0	0	0	0	Legislation only; recently enacted corporation not yet open for business.	Oct. 30, 1957
Hawaii Business Development Corp., act 288 of 1957 Legislature.	(3)	(3)	(3)	(3)	(3)	0	0	0	0	Not yet formed. Authorized in July 1957.	July —, 1957

[1] To Dec. 31, 1956.
[2] To Dec. 30, 1956.
[3] Unknown.
[4] To Mar. 4, 1957.

Source: U. S. Department of Commerce, Office of Area Development.

STATUS OF INDUSTRIAL DEVELOPMENT CREDIT CORPORATIONS IN OTHER STATES

Florida Development Credit Corp.: The 1955 act authorizing a corporation was repealed by the 1956 legislature. As of April 1957, it was reported that a new bill would be introduced in the 1958 legislative session.

Georgia State Credit Corp.: During 1956 and early 1957 the State chamber of commerce and State bankers association jointly organized and undertook to sell stock in a purely private credit corporation which did not require legislative authority. The stock sales were not successful, and as of October 1957, these sponsors are reported to have abandoned further efforts in this direction. In 1958, they will undertake to get legislative approvals for establishment of State credit corporation patterned after the New England type of organization.

Montana Development Credit Corp.: A bill, Ch. B 421 authorizing creation of 1 or more credit corporations was defeated in the State senate in March 1957. A revised proposal will be introduced in the 1959 legislative session.

South Carolina: Representatives of the State development board report that the question of a State credit corporation has been under study for sometime and an analysis has been made of New England and North Carolina types of organization. It is predicted that a bill recommending a corporation patterned after the North Carolina organization will be presented to the next session of the legislature.

West Virginia: A New England type of credit corporation was proposed to the 1957 session of the legislature, but due to the many amendments voted by the legislature, the authors recommended that the Governor veto it, which he did. According to present plans a revised bill will be present to the 1959 legislature.

Virginia: In 1953 the general assembly passed a resolution approving formation of a State credit corporation. It was referred to the committee and not reported out. It is reported that the next session of the assembly will be asked to consider establishment of a credit organization.

New Jersey: The New Jersey Department of Conservation and Economic Development reports that a credit corporation bill was introduced in May 1956 but was not reported out of committee. Another attempt to get approval of such legislation will be made to the next legislative session.

In addition it is reported that officials in Alabama, Alaska, Arizona, Illinois, New Mexico, Oregon, and Washington have considered formation of industrial development credit organizations. It is understood that none has introduced a bill for legislative action.

APPENDIX B

Statistics on northeastern development credit corporations, Dec. 31, 1957

[Amounts in thousands of dollars]

Item	Maine		New Hampshire		Massachusetts		Rhode Island	
	Number	Amount	Number	Amount	Number	Amount	Number	Amount
Stockholders and stock sold	97	93	215	105	244	788	18	152
Members and credit lines pledged	47	938	92	1,349	134	10,596	13	1,657
Commercial banks	40	783	48	547	91	5,527	6	1,247
Savings banks	5	151	38	772	31	1,483	3	135
Insurance companies			1	9	11	3,585	3	225
Others	2	4	5	21	1	1	1	50
Amounts called from members		741		608		4,300		1,024
Formal loan applications:								
Received	245	4,866	91	2,450	209	20,854	106	6,281
Rejected	168	2,896	43	1,322	110	6,959	77	4,802
Loans approved	74	1,926	48	1,123	99	13,895	31	1,479
Loans disbursed	55	1,649	42	945	70	9,008	26	1,036
Loan repayments:								
In full	31	663	8	122	9	1,233	3	290
On outstanding loans		168		172		1,871		116
Total		831		294		3,104		406
Balance of loans outstanding	21	777	33	641	61	5,904	23	630
Losses incurred	3	41	1	10				
Delinquent loans	1	5	1	8	1	29	1	4

Item	Connecticut		New York		Total, 6 corporations	
	Number	Amount	Number	Amount	Number	Amount
Stockholders and stock sold	99	127	51	430	724	1,694
Members and amount pledged	24	2,247	177	12,745	487	29,532
Commercial banks	24	2,247	154	9,456	363	19,807
Savings banks			20	2,914	97	5,455
Insurance companies			2	370	17	4,189
Others			1	6	10	82
Amounts called from members		1,392		2,500		10,565
Formal loan applications:						
Received	190	12,248	155	22,443	996	69,141
Rejected	132	9,546	73	11,563	603	37,087
Loans approved	38	1,914	66	7,247	356	27,584
Loans disbursed	36	1,548	38	3,815	267	18,001
Loan repayments:						
In full	4	120	7	32	62	2,459
On outstanding loans		492		384		3,202
Total		612		416		5,662
Balance of loans outstanding	31	918	31	3,399	200	12,270
Losses incurred	1	18			5	69
Delinquent loans	1	15	1	254	6	316

Source: Northeastern Conference of Development Credit Corporations.

PART II

SURVEYS I–VII

SURVEYS OF CREDIT AND CAPITAL SOURCES

PREFACE TO PART II

The surveys of credit and capital sources had as their main objective obtaining information on the methods and experience of principal types of suppliers of funds to small business. They aimed at developing additional new information on what may be termed the "anatomy" of the small-business credit and capital structure, the standards and practices employed by lenders to and investors in small businesses, and possible changes in such standards and practices during the recent period of credit and monetary restraint.

The following group, with me serving as chairman, planned the coverage and approach to the various lender and investor groups, developed the questionnaires, tested their practicality, and prescribed the size and characteristics of the samples.

John J. Balles, assistant vice president, Federal Reserve Bank of Cleveland.

David P. Eastburn, vice president, Federal Reserve Bank of Philadelphia.

Robert S. Einzig, assistant vice president, Federal Reserve Bank of San Francisco.

Francis R. Pawley, economist, Division of Research and Statistics, Board of Governors of the Federal Reserve System.

Roland I. Robinson, adviser, Division of Research and Statistics, Board of Governors of the Federal Reserve System.

The interviewing and the direct evaluation of interviews were carried out by the professional staffs of the Federal Reserve banks and the Board of Governors. While all Reserve banks did not participate in all surveys, participation was general in both the commercial bank and the interbusiness credit interviews. The findings in all cases are based on independent results obtained by at least a half-dozen trained observers, interviewing lenders and investors in all parts of the country. The exceptional cooperation from the lenders and investors covered made the surveys possible.

It was impractical in the short time available to develop committee reports in the usual sense for all survey reports included in part II. In such cases, authors were selected from participants in the surveys. While the final reports do not necessarily reflect the views of all Reserve bank staffs who conducted and evaluated interviews, all participants had the opportunity of reviewing the manuscript and making comments. On major points, the reports undoubtedly reflect a strong consensus.

GEORGE W. MITCHELL,
Vice President, Federal Reserve Bank of Chicago.

MARCH 31, 1958.

I. REVIEW OF SURVEY FINDINGS[1]

INTRODUCTION

These surveys were undertaken to view through the eyes of lenders and investors the techniques and problems of financing small business. They cover practices and policies of the major sources of credit and capital available to small business—commercial banks, commercial finance companies and factors, large businesses, life-insurance companies, and investor sources of outside equity.

While the coverage of the surveys is substantial, there are two significant omissions and probably several of a minor nature. No attempt has been made to describe and determine the relative importance of the flow of equity capital funds coming from the small-business man's savings or from his friends and relatives. Estimates of the magnitude of these flows appearing elsewhere in these papers suggest that the volume of equity funds from such origins is substantial, both absolutely and as compared with capital acquisition from external sources by large business.[2] The other major omission relates to the internally generated funds from depreciation allowances and retained earnings. More complete data on the role and significance of both of these sources will be assembled in connection with the survey of small-business men themselves, which is being conducted as the third part of the overall small business financing project.

Also excluded from the coverage of these surveys are some savings pools which, normally, are neither tapped directly nor used to any significant extent by small business. These include public and private pension funds and trusts, mutual savings banks, savings and loan associations, and credit unions.

A major part of the data assembled was obtained by interviews covering representative lenders and outside suppliers of equity capital in all sections of the United States. The interviewers were trained observers with background in economic and credit analysis. The interviews, conducted systematically according to detailed schedules, yielded information which is predominantly descriptive of credit techniques, instruments, and institutions. However, judgments and opinions of both the interviewers and the interviewees were also reflected in the answers reported. Such subjective evidence has been checked for consistency with other facts and statements from particu-

[1] Prepared by George W. Mitchell, Vice President, Federal Reserve Bank of Chicago. George W. Mitchell, Federal Reserve Board of Chicago, economist, 1943; vice president, 1951. Bachelor of arts, University of Wisconsin, 1925; student (part-time), University of Iowa, 1927–30; University of Chicago, 1930–33; director of research, Illinois Tax Commission, 1933–39 and 1941–43 (member commission, 1939–40); assistant to director of revenue, Illinois, 1943–44; director of finance, Illinois, 1949–51; tax consultant for Civil Aeronautics Board and director of study of multiple taxation of air commerce, 1944–48; member, advisory group appointed by Joint Committee on Internal Revenue Taxation To Investigate the Bureau of Internal Revenue, 80th Cong.; chairman of Federal Reserve Board staff which prepared Automobile Instalment Credit Terms and Practices, supplement III, Federal Reserve System, Consumer Instalment Credit, pt. I, vol. 2; editor of Business Conditions, monthly review Federal Reserve Board of Chicago.

[2] See pt. I, Background Studies, study 5 (Schweiger), p. 124.

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lar lenders and with reports from other interviewees. Undoubtedly, some unconscious bias remains, but all results have been reviewed carefully for objectivity and consistency with known facts. Completed questionnaires were supplemented with balance-sheet and earnings statements, as well as some special tabulations and, in the case of member banks of the Federal Reserve System, with very detailed analyses of business loan portfolios of such banks in 1955 and 1957.

Interviews with all types of lenders and investors showed their sincere concern that the financing problems of small business be adequately met. Few respondents doubted the desirability of preserving and nurturing, as a matter of public policy, the opportunity for citizens to enter business and to prosper according to their capacity to supply products or services in competitive markets. In fact, more often than not, credit standards for the small and newer businesses, other things being equal, appeared to be more elastic than those for their larger, better established counterparts.

KINDS OF SOURCES

While suppliers of credit and capital to small business provide funds in the expectation of a favorable return, the form in which this return occurs, the importance of competing demands for funds, and the differences in institutional attitudes significantly modify lending and investing practices. Classified on the basis of similarities in such attributes and attitudes toward small business, lenders fall into three categories:

(1) Financial intermediaries, such as banks and insurance companies.

(2) Specialized lending and investing firms or individuals, such as commercial finance companies and factors.

(3) Business firms whose conventional terms of sale or special credit arrangements, in effect, substitute for their customers' working capital.

The relative importance of each of these sources of funds to small businesses is not determinable with any precision, but credit supplied by large businesses and by banks are both of major importance. Interbusiness credit outstanding appears to exceed bank credit in dollar volume, but the greater flexibility of bank credit adds to its effectiveness.

Financial intermediaries[3]

The number of credits being extended to businesses by financial intermediaries appears very large, both absolutely and in comparison with the total number of businesses. Thus, commercial banks alone, including nonmember banks as well as the number banks covered in the Federal Reserve survey of business loans of banks, probably had outstanding from 1¾ million to 2 million separate loans to business in the fall of 1957, in comparison with a total business population in the neighborhood of 4 million. To be sure, some companies had several notes outstanding at different banks, and some had more than one note outstanding at the same bank. Many other concerns, however, had no bank indebtedness.

[3] See surveys II, p. 371, and III, p. 396, for commercial banks, and survey VI, p. 512, for life-insurance companies.

Banks and insurance companies are unique among lenders to small business in that their investment policies are affected not only by the interests of stockholders and borrowers but, also, by depositors and the needs of the communities they serve. As profit institutions, they are obviously interested in providing the most attractive return possible on their invested capital. The equity interest, however, is a relatively small part of total lendable funds. Mainly, these financial institutions loan other people's money or savings—as represented by the time and demand deposits in commercial banks and the reserves in insurance companies. They attract these savings and unused cash balances by offering intangible services and benefits as well as financial returns. Since depositors and savers are primarily concerned with liquidity, safety, and convenience, the portfolios of these financial intermediaries must be suitable, in fact and appearance, to meet these criteria. These responsibilities are specifically recognized in the statutory limitations on the types of investments banks and insurance companies can make, the types of paper eligible as collateral for borrowing from the Federal Reserve banks, and the amounts that can be loaned to a single borrower.

The financial intermediaries have still another concern supplemental to the interests of depositors and policyholders and stockholders. The commercial banks, in particular, are so intimately related to the communities in which they are located that they feel, and are strongly influenced by, considerations of community interest beyond those related to earnings and liquidity. Most banks try to accommodate their loan and investment policies to the financial needs of local business, government, and consumers. Lending policy is, thus, a compromise of several interests.

Within this framework, banks are, in the broadest sense of the word, perhaps the most unspecialized lending institutions in our economy. They adjust their lending and portfolio positions in response to changes in the relative profitability of a wide variety of alternative lending and investment opportunities. The corollary for the small-business man who uses bank credit is exposure to the full range of competition for this credit from larger business, from consumers for durable goods or housing, from tax-exempt securities of State and local governments, and from Federal Government securities. To some extent, special lending techniques have been developed to aid a small enterprise in seeking bank-credit accommodation. Thus, a possible lack of competitive advantage with regard to creditworthiness may be offset by the use of collateral, either through a mortgage or, on equipment financing, by the equipment itself.

A final consideration of the bank lender is the diversification of his loan portfolio from the standpoint of both type of business and locality. Just as he spreads his risks among borrowers, so he tries to avoid exposure from the extension of a disproportionate amount of credit in a single community, particularly one where economic activity is dominated by one or a few industries. In general, bank loan rates are insufficient to cover these types of risks.

Specialized lenders and investors [4]

In contrast to the financial intermediaries, with their multiple allegiance to depositors or savers, stockholders, and borrowers, there is

[4] See survey IV, p. 449, for commercial finance companies and factors, and survey VII, p. 525, for sources of external equity capital.

a group of concerns (and individuals) whose businesses are organized for the specific purpose of providing credit (and equity-capital financing) to other kinds of business. Their only customers are borrowers (and owners); their only product, funds for the use of business. While these companies (and individuals) do not deal exclusively with small business, their techniques of operation are adapted to serve industries in which small businesses or rapidly growing firms are common.

The commercial finance companies and factors are typical of these specialized lending institutions. Their business is quite competitive within the industry and, of course, faces competition from banks, particularly for the higher quality loans. The industry has offices throughout the United States, but most of the business is concentrated in the East and in the larger metropolitan centers. Its customers are estimated to number in the neighborhood of 15,000 business firms. The clients of commercial finance companies and factors, by and large, are firms whose creditworthiness is such that they find it difficult to secure bank loans in the amounts needed. Generally, the form of credit extended by commercial finance companies involves substantial handling costs and above-average risk, so that the rates which they charge for their services are considerably higher than rates applicable on bank loans.

These specialized lenders do not have the range in alternatives for use of their funds that is available to a bank. As specialists in the field of business credit, many such firms, notably factors, concentrate in particular industries, such as textiles. While they lend in various ways, some form of accounts-receivable financing is predominant.

Specialized equity investors.—Another source of funds for small business is the investor who is looking for a promising enterprise in which the possibility of substantial growth is inherent—often a growth that can be realized in the form of capital gains. Investors interested in such situations are largely individuals, although there are organized groups that systematically search for similar investment possibilities.

The relationship here is an impersonal one (that is, not a tapping of the savings of friends or relatives), with the investor often going so far as to offer a finder's fee for a good prospect and with the prospect exploring the possible sources of equity financing referred to him by his bank or attorney. It is evident that there is no smoothly functioning mechanism for bringing these parties together. In most localities, judging from our inquiries, the process works only fairly well. Part of the difficulty is the understandable reluctance of the small-business man to dilute his equity at just about the stage at which profitable operations are at hand, even though this is often, also, a stage when the need for greatly enlarged financial resources is clearly indicated. Alternatively, he is tempted to try to get along with a smaller scale of operations and to resort to more costly forms of credit.

The equity suppliers' overall profit experience, as near as can be ascertained from our interviews, is not highly favorable, and points up the need for intensive screening of applicants in order to make this form of investment competitive with much less risky and less illiquid alternatives.

The above considerations indicate that the number of small businesses that are likely to benefit from the availability of equity capital

from this source is relatively limited. Few opportunities for substantial growth in earnings exist in the retail or service field, for example, or in any area of manufacturing where processes and markets have been well developed. It takes the promise inherent in a new product, or in a cost-reducing process, or in the combination of some rare scientific and managing skills, to produce the growth trend that equity-capital suppliers generally fix as a minimum requirement. While the existence of these sources of equity capital suggests that they may have developed in response to financing needs of particular types of business, the extremely high rejection rate and the unused expansion potential of this type of financing also suggest that it is very difficult for most small businesses to meet the standards or costs.

Interbusiness credit [5]

The largest volume of funds for small business today does not come directly from conventional lenders and investors, but arises from selling transactions between retail outlets and large manufacturers or wholesalers. Such credit is only part of the $100 billion aggregate of interbusiness trade credit, most of which is extended on a convenience or conventional basis from large to large, small to small, and small to large, as well as from large to small concerns. The greater part of this credit washes out when trade payables are deducted from receivables. What remains is mainly credit extended to small business.

The number of concerns receiving this type of net trade credit accommodation is not known, but an excess of payables over receivables is characteristic of nonfinancial businesses in all asset-size classes under $1 million, according to the latest available Statistics of Income (1954). Ninety-five percent of all nonfinancial firms filing tax returns with balance sheets are in this size range.

This particular type of credit has grown rapidly in the postwar period in response to several underlying trends, including the changing structure of retail distribution, the increasing use of consumer credit (due to the declining liquidity position of consumers and the stepup in their spending for hard goods), and the shift from the strong sellers' market of the earlier postwar period to the buyers' market of today. Aggressive merchandising for many types of consumer products now requires substantial investment in inventory and consumer receivables. To an increasing extent, these requirements are being met directly or indirectly by large manufacturers or wholesalers through their extensions of trade credit, conveniently located inventory stocks, the purchase of consumer paper from dealers, and a variety of other financing aids to retailers. Thus, the final link in the chain of production, the connection between the retailer and the consumer, is being strengthened with the credit resources of large and very large business.

There are a number of reasons why trade credit has developed as the most logical and convenient source of small-business working capital. In the first place, local sources of outside funds, particularly in smaller communities, may well be inadequate—especially if there are many small firms seeking accommodation. In such a "capital importing" community , the only outside source with sufficient knowledge of the small firm's operations and creditworthiness is the supplier or manu-

[5] See Survey V, p. 482, for credit from large to small business.

facturer with whom it has an established working relationship. Secondly, it is in the interest of manufacturers and wholesalers to promote the strongest possible retailing organization, and adequate financing is a requisite of such strength.[6] Finally, the attitude toward losses differs basically between a financial institution and a sales organization. The latter has the facilities for repossessing, reconditioning, and reselling inventory or equipment. Moreover, the costs of investigation and of servicing receivables financing are minor compared with those involved in the establishment of a franchised outlet.

LARGE AND SMALL BUSINESS DIFFERENTIATED BY FINANCING PRACTICES

Both the qualitative and the quantitative evidence assembled in these surveys are extremely difficult to sift and interpret because of the arbitrariness of the definition of small business. Asset size and type of business have been the standards employed, but the implications of the survey findings are sometimes different when the two are used in combination than when the former is used alone. It is evident, too, from the reports of the interviewers, that most of the interviewers had divergent concepts of where to draw the line between small- and medium-size business and found it difficult to adapt their judgments to the asset-type-of-business definition used.

There is a technique for breaking away from the difficulties of an arbitrary definition of small business. Looking to the financing aspect alone, business can be divided into those firms that are large and sufficiently well-established to obtain funds in national capital and credit markets. If a business has this status, it also has the creditworthiness to maintain substantial credit lines at two or more sizable banks. Businesses that achieve this credit position are independent of local sources of financing and can obtain funds in highly competitive markets where supplies of credit are allocated to the competing demands which offer the best net return. The advantage of being able to borrow on a short- or long-term basis in such markets is that there is seldom a problem of availability. At the going price, funds are available. The price will, of course, reflect the competition of other users of short- and long-term credit at the time, but the borrower in this market may be sure that he has the same opportunity to obtain funds as any other borrower if he has the wherewithal to pay for them.

The businesses that are not large enough to enter national credit markets must depend upon other sources of funds. Of course, the mere fact that a business is not large enough to shoulder its way

[6] Mr. William A. Hewitt, president, Deere & Co., in speaking to the 10th annual credit conference of the American Bankers Association in Chicago on January 16, 1958, expressed a typical attitude of manufacturers toward the relationship between credit and merchandising.

"A satisfactory volume of machinery sales to farmers requires that there be a ready supply of credit to finance those sales. Machinery manufacturers learned this by hard experience. To us, credit is a sales tool. We provide it because we must. In so doing, it is neither our wish nor purpose to compete with banks. Our evidence for this is the fact that much of the farmer paper we accept from dealers generally carries higher rates than banks charge for such paper, and our rates are as low as any in the industry. Even so, the amount of retail paper our company had on its hands last October 31, the end of our fiscal year, approximated $100 million, 200 percent more than 3 years ago. Surely the limited availability of credit from other lower-cost sources must be a factor in this situation.

"We do not attract this business by taking excessive risks. Our credit standards are high and each year we carefully review all notes and charge off those that appear doubtful. Our losses have been minor—in fact, for some years after World War II our collections on notes previously written off greatly exceeded the amounts being charged off during those years."

into the national credit markets does not necessarily mean that it is lacking in credit resources. If the business is well-established with a good earnings record, good management, and a strong equity position, it unquestionably has a good bank connection. Banks generally value accounts of such customers highly and give top priority to their financing needs. In addition to bank borrowing, many small businesses rely on their connections with other businesses through the medium of trade credit.

To convert the distinction between large and small business based on access to national credit markets to an asset-size standard, the minimum long-term financing which the security markets will handle—somewhere between $300,000 and $1 million—may be used as a guide. This implies an asset maximum for small business of $1–$3 million.

The pattern of outstanding bank loans, as indicated by the Federal Reserve member bank business loan survey in the fall of 1957, shows that 22 percent of loans were to very large businesses with assets of $100 million and over, 12 percent were to large businesses with assets of 25 to 100 million dollars, and 31 percent were to medium-size businesses with assets of 1 to 25 million dollars.[7] Toward the lower limit of the latter group, it becomes impractical for a business to attempt to meets its financing requirements in national or regional credit markets. Most of the businesses with assets under $1 million depend upon their community's banks and on interbusiness credit for their financing. The fact that small businesses made substantial and widespread use of credit does not prove or disprove that their needs were met as adequately as those of the medium-size and larger businesses.

Much of the competitive disadvantages of the small relative to the large businessman in obtaining credit is due to higher interest charges. These, in turn, reflect higher costs of extending such credit.[8] The first element of difference is risk. The cost of riskless money (pure interest) at any given time is the same for everyone, but to this cost must be added the risk of the particular enterprise, risk associated with a given industry or particular locality, as well as that associated with the personal qualifications of the borrower. These risk differentials are a matter of judgment, but they become a significant item in the cost of extending credit as the loss experience becomes less and less favorable.

Second, small business borrows in small amounts. The overhead cost of extending this credit has to be spread over a much smaller base and, therefore, the total cost per dollar of loan is much higher than when credit is extended in very large amounts. Such costs include investigative, bookkeeping, and collection costs. A thorough credit investigation of a small business with mediocre records may well cost more than that for a medium-size or large business, where the documentation that the lender seeks is more readily available. Moreover, the spreading of these costs over the small loan makes a substantial addition to the interest charge, whereas in the large loan, the flat addition has virtually no effect on the interest charge.

Consequently, the rates paid by a small business tend to be considerably higher than those paid by a large business, and where loss experience indicates high risk, the loans simply become unbankable

[7] Details are reported in survey II, p. 371.
[8] See pt. I: Background Studies, study 3 (Moore, Atkinson, and Kilberg), p. 40.

within the range of rates that banks are able or willing to charge. Some specialized lenders deal with more risky loans by elaborate recordkeeping and supervisory precautions, but even these add substantially to the cost of credit extension and limit the availability of such credit to those businesses which are exceptionally profitable.

It is frequently said that small business differs from large in its more limited ability to obtain intermediate- and long-term credit and equity capital. This group of surveys has dealt only partially with the problem of equity capital availability, but it has explored rather fully the question of intermediate-term credit. Here the facts show that such credit is available from the banking system to small businesses in substantial amount. Loans with maturities of over 1 year made up a third of total extensions to both small- and medium-size businesses, and over 40 percent of those to large businesses. Term credit is available to large businesses, however, on a different basis than to small businesses. In the case of large business, the term loans are typically unsecured; in the case of small business, they are secured by equipment, real estate, or personal assets.

Accounts receivable financing also is a method of providing credit on a continuous basis for a business that is going through a period of its development in which rapid growth has unbalanced its capital structure. As a matter of fact, the record indicates that lenders have been surprisingly ingenious in setting up methods of extending term credit to small business without the sacrifice of security standards. Only to a minor degree do these methods seem to be disadvantageous compared to the unsecured term loan to large business. In some forms they are somewhat more costly because of the recordkeeping involved in policing the collateral security and handling the accounting. There are also types of business which do not generate collateral appropriate to any of the financing techniques now in use. Thus a business which needs funds for advertising and promotion may find it difficult to provide the specific collateral that a lending institution would require.

SIGNIFICANCE OF SURVEY FINDINGS ON STRUCTURAL DIFFERENCES IN ACCESS TO CREDIT OF DIFFERENT SIZE BUSINESSES

Members of the business community may be grouped into three general classes insofar as access to credit is concerned: Those with substantial credit available, through one or another of the general or special financing forms; those quite clearly at some major disadvantage in obtaining credit in any form; and an indefinable group, probably of moderate size, to which funds may be available only in locations, forms, or amounts which may not be fully satisfactory in terms of efficient operation of the borrower.

The predominance of the first class of borrowers is suggested by the previously cited number and varieties of credit accommodations made available by the competing lenders and investors. Prominent in this group are the large and very large corporations with access to national credit markets. In addition, established medium-size businesses are generally well accommodated at their local banks because of valuable present and future deposit balances and profitable ancillary business that can grow out of such a customer relationship.

For similar reasons, established small businesses tend to be accommodated through short-term, general-purpose credit by the small banks in their localities within the limit of the banks' capabilities. Since most banks, along with most business, are small, the greatest number of bank loans to small business are lodged in banks which do not lend to large business.[9]

Businesses with strong associations with suppliers are another category to which credit appears generally available at the time and in the volume desired. Thus, franchised or licensed dealerships, outlets for brand-name services and the like, appear to be able to elicit needed financial assistance from large manufacturers or wholesalers to carry customer paper, finance their own working capital needs, purchase equipment, or even to finance additions to plant.

Over and above these general relationships with a single type of lender, small businesses with certain specific attributes or needs are well received by most types of lenders. Foremost in this grouping are "growth" businesses, whose current and potential rapid expansion in sales and profits make them desirable long-run customers to banks, or finance companies, or manufacturers of lines which the growing firms sell.

In addition, small businesses purchasing general-purpose equipment for operations which will add to earnings ordinarily find intermediate-term equipment financing arrangements available from several sources. One of these is the manufacturer-seller of the equipment. Also available in developed areas probably are banks with sufficient resources and experience to entertain such types of credit applications, and, less often, finance company offices prepared to advance this kind of funds.

A final major category of small business to which credit is generally available is the firm with adequate nonbusiness collateral (e. g., general-purpose real estate, securities, life insurance, indorsements of others). The essence of such security is that its value does not depend upon the continued successful operation of the business. On such collateral, businesses can borrow from banks or finance companies irrespective of the newness or riskiness of their operation, and many new businesses acquire some initial working capital in this fashion.

Opposed to these types of small businesses are others with attributes which make their financing appear so risky, or so costly to process, that they are only peripherally served by most types of contemporary lenders and investors. Among these are new businesses without the sort of established earnings to elicit unsecured credit, and yet having only assest which are so closely associated with the business that they are not acceptable as security (e. g., high-style inventory and special-purpose equipment). More extreme cases are small businesses, such as certain personal service establishments, with no pledgeable assets.

Oftentimes a complementary disadvantage in these cases is a level of owner equity which is deemed low in relation to possible operating losses or shrinkage in asset values. Lack of equity is viewed as a

[9] The 1957 Federal Reserve bank loan survey shows that 92 percent of the number of business loans of banks with total deposits of less than $10 million were to firms with assets of less than $1 million. The corresponding percentage for banks with deposits of 10-100 million dollars was 74. By way of contrast, in the largest banks, those with deposits or $1,000 million and over, the percentage was 12.

particular hazard in lines with a high business mortality rate, such as restaurants and taverns.

Another generic drawback to extending credit is poor management. Included in this consideration can be a poor operating record on the part of the managers, inexperience, or such moral risks as previous bankruptcies, felonies, or dishonest behavior.

A final type of constriction on credit availability to some small businesses stems from their location and lack of borrowing mobility. Firms with only very few sources of financing within their borrowing radius run the risk of finding their suppliers untrained in the type of credit extension desired, constricted in cash availability because of low community savings or temporary adverse drains of funds, or overcommitted in the type of credit or capital sought because of a particular geographical concentration of requests.

To some extent lenders, in accommodating these peripheral types of needs, employ higher interest rates and service charges to cover high costs and losses. In a number of instances, however, the potential losses of principal from nonpayment are judged sufficiently high not to be compensable by interest and service charges of the conventional sort or the lenders and investors just do not wish to be involved in such high-risk, high-cost operations.

SIGNIFICANCE OF SURVEY FINDINGS AS TO DIFFERENTIAL IMPACT OF RESTRICTIVE CREDIT AND MONETARY POLICY

Shifts in the amount and form of financing flowing to various sizes of business are known to take place from time to time. It is difficult, however, to determine from available evidence which particular shifts reflect specific changes in individual firm creditworthiness and which reflect changes in general business and credit conditions or secular modifications in business organization. Similarly, from aggregate information presently available, it is almost impossible to ascertain to what extent financing shifts reflect changes in credit availability and to what extent they reflect alterations in credit needs and demands.

It could be ascertained that the predominant credit suppliers of small business—small banks and large business—were less affected by changes in general credit conditions than some other parts of the financial structure. During the 1955–57 period small banks experienced much more deposit growth and less constriction of reserve position than did the large banks in major financial centers. Big banks, under greater deposit and reserve pressure, nonetheless faced a greater loan demand. Consequently, they found it necessary to be heavy sellers of United States Government securities at declining prices. Small banks, meanwhile, had sufficient available funds to be able to add to their holdings of Government securities during most of the period of business expansion.

Behind the heavy loan increases at large banks was a rapidly rising demand for funds from large businesses. Increased interest rates, and in some cases more restrictive terms (e. g., limited maturities and higher compensating deposit balances) accompanied these growing borrowings, but for the large firms willing to pay this price bank credit continued to be available in the volume desired. Prominent among the needs so financed was an increase in net receivables due

from smaller firms, which rose proportionately more rapidly than the sales of large businesses during the boom.

No class of supplier of small business credit reported any appreciable policy of curtaining its small business lending between 1955 and 1957, although some trade creditors felt that bank credit to their smaller customers was not expanded enough to suit the needs of aggressive marketing. Survey data indicated a smaller growth in bank loans to small business than in bank loans to large business, both by industry and in total. The fact that such disparities did not tend to become greater among the banks under greater pressure suggests, however, that such occurrences were not primarily the result of a differential impact of restrictive monetary policy. Another, and perhaps the major reason for such a trend was a difference in the demand for funds between small and large firms. Another contributing factor may have been the greater deterioration in creditworthiness of small as contrasted to large businesses over the recent economic expansion.

Small firms may not in fact have matched the pace set by large firms in loan requests because of less stimulating sales records, poorer market outlook, fewer investment possibilities, or any of a number of other factors on which small-business operating experience could prove inferior to that of its larger counterparts.

TRENDS IN FINANCING PRACTICES

Without further study of disparate operating experience among smaller and larger firms, no reliable guide is available as to whether these developments might be temporary or secular in nature. On the other hand, fairly convincing evidence was obtained of secular developments in certain forms of small-business financing. The foremost examples of growing methods of small-business financing are equipment financing, accounts-receivable financing, and credit extensions from large business. Considering their emergence in reasonably free and competitive markets for credit, these financing avenues can be presumed to be widening in response to underlying needs. However, developments of such a secular nature blur—and are themselves blurred by—the more transient adjustments inspired by conditions of general credit ease or restraint.

The needs for these three particular forms of credit have been expanded by the increasingly capitalistic nature of the economy. Both producers and consumers are purchasing more big-ticket, long-lived assets under the spur of such influences as rapid technological advances and higher labor costs and incomes. Accommodations of these larger and more specialized needs require some corresponding specialization in credit granting. Credit grantors need personnel trained in appropriate investigation and collection procedures. They need special knowledge of the capital good being financed—its market, its earning potential, its alternative uses. Furthermore, because such specialization is expensive and the irreducible risks in such lending are still relatively high, credit grantors in such fields need special capabilities for absorbing the costs and losses of operation.

Lenders have moved in these directions in two basic ways. Some established lending institutions well enough situated to afford it have

acquired the specialized skills and knowledge that permit prudent extension of credit in more specialized uses. At the other extreme, a good many businesses selling to small firms have expanded lending to such customers, even borrowing to do so. They are able to capitalize upon the detailed knowledge they already possess of the industry and product. Furthermore, since they already are organized to bear the risk of special-product inventory or investment, the net increment to their risk exposure by such lending to customers is not as great as for an outside lender.

The surveys have provided a wealth of institutional background in lending practices and financing needs of business. They have brought together knowledgeable judgments of experienced lenders and investors, representing commercial banks, commercial finance companies and factors, managers of the credit departments of large businesses, life-insurace companies, and investors seeking outlet for equity funds. But, at the most, these findings provide only a partial understanding of the financing problems of small business. The results from the third phase of the small-business financing project, the approach to the small-business man himself, are essential to a conclusive and perceptive diagnosis of these problems.

II. MEMBER BANK LENDING TO SMALL BUSINESS, 1955–57 [1]

As part of its present broad inquiry into small-business financing, the Board of Governors of the Federal Reserve System, in cooperation with the Federal Reserve banks, conducted another survey of business loans at member banks as of October 16, 1957. This survey was comparable to a previous one conducted as of October 5, 1955.

The major purposes of the new survey were threefold.

1. To provide detailed information on the current structure of member-bank loans to business and the terms and conditions on which such loans are extended, with particular reference to those made to small and medium-size businesses.

2. To analyze developments in the use of bank credit by firms of various sizes between the 1955 and 1957 surveys in relation to changes in the economy and in business financing.

3. To examine into the differential effects of increasing credit and monetary restraint on the allocation, terms, and cost of bank loans to businesses of different sizes.

SUMMARY OF FINDINGS

On October 16, 1957, outstanding business loans of member banks totaled nearly $41 billion, or 32 percent more than on October 5, 1955. A high proportion of the number of loans on both dates was to small businesses, but most of the dollar volume was to larger businesses.

Between 1955 and 1957, loans to large businesses in most industries expanded much more in dollar volume than loans to smaller businesses. Moreover, loan growth was greater for industries in which large businesses are predominant than for industries in which medium-size and small businesses are relatively important. To a considerable extent, changes over the period in the size of business and industry structure of loans were related to changes in the economic environment, par-

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[1] The 1957 survey of business loans of member banks was under the general supervision of Ralph A. Young, Director, and Albert R. Koch, Associate Advisor, of the Board's Division of Research and Statistics. The information was collected by the Federal Reserve banks. This report was prepared in the Banking Section of the Division under the direction of Mr. James B. Eckert, Chief, who also had specific responsibility for the administration of the survey.

Eckert, James B. Bachelor of arts, Oberlin College (1934); master of arts, University of Cincinnati (1936); doctor of philosophy, Cornell University (1947). Taft memorial teaching fellow, University of Cincinnati, 1934–36; instructor in economics, Cornell University and University of Rochester, 1936–42. Economist, Office of Price Administration, 1942–47; fiscal analyst, Bureau of the Budget, 1947–51; economist, Economic Stabilization Agency, 1951–53; economist, Board of Governors of the Federal Reserve System, 1953. Present position: Chief, Banking Section, Division of Research and Statistics. Publications: Studies in Price Control; Pricing Standards (editor and contributor); Business Loans of Member Banks, Federal Reserve Bulletin, April 1956.

Assistance in planning the survey was provided by Madeline McWhinney, chief, financial and trade statistics division, Federal Reserve Bank of New York; John J. Balles, assistant vice president, and Oliver H. Jones, senior economist, Federal Reserve Bank of Cleveland; Theodore H. Schneider, economist, Federal Reserve Bank of Chicago; and Eleanor Stockwell, James C. Byrnes, and Edward P. Snyder, economists, and Maurice H. Schwartz, chief analyst, of the Board's Division of Research and Statistics. Mr. Schwartz and Mr. Snyder also were responsible for developing the statistical methods and processing procedures for editing and summarizing the data.

ticularly the large expansion in productive capacity by many businesses.

Business of all sizes borrow from banks mainly on loans with short maturities, but between 1955 and 1957 all except the largest businesses expanded their term loans—those with maturities over 1 year—much more than their short-term loans. Large businesses obtained most of their long-term financing through the securities markets, but smaller businesses, with this alternative less readily available, relied more heavily on banks for this type of financing.

In 1957, as in 1955, most loans to small businesses, particularly term loans, were backed by collateral or otherwise secured, while most loans to larger businesses were unsecured. Over the 2-year period, the proportions of secured and unsecured loans within various size groups of borrowers changed little.

Loan expansion between 1955 and 1957 was greater at large than at smaller banks, and large banks generally expanded their loans to small- and medium-size businesses more than smaller banks. Within most size classes of banks, loan expansion was greater for large than for smaller businesses. In general, growth in total business loans and in loans to smaller businesses was greatest in geographic areas experiencing the greatest economic expansion.

Smaller businesses paid higher interest rates on their bank loans than large businesses in both 1955 and 1957, but, in the intervening period, rates charged large businesses rose much more than rates charged smaller borrowers. Businesses of a given size generally paid about the same rate on their loans, whether they borrowed from a large or a small bank.

About 5 percent of the amount and 8 percent of the number of member-bank loans outstanding on October 16, 1957, were to relatively new businesses. Most of these loans were to small, unincorporated businesses, and, generally, carried somewhat less favorable terms and interest rates than those to established businesses.

COMPARABILITY OF 1955 AND 1957 SURVEYS

In conducting the 1957 survey, every effort was made to assure maximum comparability of the new data with those of the 1955 survey. Except for a few items, identical information was requested from respondents.[2] An identical sample of banks, adjusted for mergers and other changes in bank structure between the two survey dates, was asked to report. The surveys were conducted at closely related dates in both years to minimize any possible distortions arising from seasonal movements in credit utilization. The statistical procedures used in processing the loan information supplied by respondents to obtain estimates of loans at all member banks were the same.[3]

In both surveys, reports were received from well over 90 percent of the nearly 2,000 member banks included in the sample of banks

[2] The reporting form and instructions used in the 1957 survey appear in appendix B. The form and instructions used in the 1955 survey were published in the Federal Reserve Bulletin, April 1956, pp. 338–339.

[3] In the summer of 1956, following publication of the preliminary estimates of 1955 survey data in the Federal Reserve Bulletin, April 1956, a revised and improved statistical procedure was adopted for expanding the 1955 loan-sample data to obtain estimates for all member banks. Estimates based on the revised procedure are used in this report. They differ little from the preliminary estimates for dollar amounts of loans and average interest rates, but they are about 10 percent lower than the preliminary estimates for members of loans.

asked to report. The reporting banks accounted for nearly one-third of the number of Federal Reserve member banks and over 90 percent of the dollar volume of business loans outstanding at member banks. Both surveys had the cooperative support of the American Bankers Association and the Robert Morris Associates.

Major findings from the 1957 survey and comparisons with 1955 data bearing on the analysis of member-bank lending to various sizes of business are summarized in this report. To provide background for consideration of the findings, relevant economic developments covering the period under review are briefly summarized in the following section.

ECONOMIC BACKGROUND

The structure and characteristics of bank loans outstanding on a given date reflect economic and financial conditions for several months, and even years, prior to that date. Although bank loans are made and paid off in large volume every day, nearly half the dollar volume outstanding on both survey dates had been made more than 3 months prior to those dates. The average original maturity of outstanding member-bank loans was somewhat more than 1 year, and many maturities were much longer. Accordingly, it is necessary to examine economic developments prior to 1955, as well as between 1955 and 1957, in order to appraise changes in bank lending revealed by the two surveys.

When the 1955 survey was conducted, the United States had been experiencing a vigorous upswing in economic activity for more than a year. By the spring of 1955, recovery from the 1953–54 recession had been achieved, and output had risen further to new record levels, sparked by a surge of consumer buying of houses, automobiles, and other durable goods. This wave of consumer buying was encouraged by the ready availability of mortgage and consumer installment credit on favorable terms.

Responding to the growth of consumer demands, as well as to other influences, businesses resumed their increase of inventories and also increased spending for plant and equipment. Business loans at commercial banks rose 20 percent in the 12 months preceding the 1955 survey, and other sources of business finance were also providing increasing amounts of funds.

At the time of the 1955 survey, gross national product had risen more than 10 percent from its 1954 low point, and most of the increase represented growth in physical volume of output. Economic activity had reached a stage where there was little margin of unutilized resources for further expansion. Since mid-1955, growing demands had been generating rising prices, and monetary policy had shifted from ease designed to promote recovery and renewed growth to restraint in the face of developing inflationary pressures.

In the 2 years between the loan surveys, the current value of economic product increased appreciably further. Real output rose only moderately, but its composition changed considerably. The principal impetus for expansion of aggregate demand shifted from the consumer sector to the business sector. Residential construction and automobile sales receded from the unusually high levels of 1955, while business-investment expenditures accelerated. Business continued to add to inventories and, with tax liabilities also rising, business de-

mand for funds rose rapidly. Corresponding to the decline in relative importance of consumer spending, consumer-debt expansion slowed in 1956–57 while financial saving by individuals increased markedly, helping directly and indirectly to finance the expansion in business-capital outlays.

In response to the increase in financing needs, businesses supplemented their growing internal sources of funds by borrowing unusually large amounts from banks, by issuing securities, and by borrowing from each other in the form of trade credit. Business loans at banks rose $10 billion, or nearly one-third, in the 2 years between the surveys. Corporate securities outstanding increased $19 billion. In the course of the 2-year period, with the liquidity positions of both business concerns and banks under increasing pressure, a growing proportion of business borrowing was derived from securities markets and a declining proportion from banks

At the time of the 1957 survey, the investment boom was just reaching its cyclical culmination and a general recession was beginning. Nevertheless, business demands for credit at commercial banks had continued strong through September. Bank lending was still restricted, with bank liquidity considerably reduced after 3 years of loan expansion under conditions of restraint imposed by the Federal Reserve.

SIZE OF BORROWER AND INDUSTRY STRUCTURE

In both 1955 and 1957, most business loans outstanding at member banks were to relatively small businesses, but most of the dollar volume was to large businesses, as shown in table 1. Between 1955 and 1957, the dollar volume of outstanding loans rose for all borrower size groups except the smallest firms with assets less than $50,000. Loan growth was much greater for each of the 2 largest asset groups than for any other group, amounting to 66 percent for borrowers with assets of $100 million or more and 51 percent for those with assets of 25 to 100 million dollars. The average increase was 21 percent for all other size groups and 32 percent for total business loans.

Number of loans outstanding rose for all borrower size groups. The changes were about proportionate to those in dollar amount outstanding for all except the two largest size groups. For these businesses, number of loans went up much less than dollar amount and the average size of loan rose sharply. This increase in loan size probably reflects, in part, a rise in the utilized proportion of authorized credit lines.

In classifying size of business for the purposes of this analysis, no allowance was made for the growth in assets of most businesses between 1955 and 1957, in part owing to rising prices. The same dollar limits were used in determining asset size groups in both surveys and borrowers were classified by size on the basis of their total assets at a recent date prior to each survey. As a result of asset growth, some borrowers classified in 1955 in the smallest asset group (assets under $50,000) undoubtedly were classified in larger size groups in 1957. If the asset levels used for classifying businesses in the 1957 survey were raised by 6 percent, the amount of increase in wholesale prices between 1955 and 1957, the dollar amount of loans outstanding to the smallest asset group, instead of showing a decline, undoubtedly would show an increase. The volume of loans in other asset groups, however, would be little affected.

TABLE 1.—*Business loans of member banks, 1955 and 1957, by size of borrower*

Size of borrower (total assets, in thousands)	Amount of loans					Number of loans					Average size of loan		
	Millions of dollars		Percentage change, 1955–57	Percentage distribution		Thousands		Percentage change, 1955–57	Percentage distribution		Thousands of dollars		Percentage change, 1955–57
	1955	1957		1955	1957	1955	1957		1955	1957	1955	1957	
All sizes	30,805	40,618	31.9	100.0	100.0	1,185.2	1,280.6	8.0	100.0	100.0	26.0	31.7	22.0
Less than $50	1,501	1,456	−3.0	4.9	3.6	503.1	504.7	.3	42.5	39.4	3.0	2.9	−3.3
$50 to $250	4,505	5,256	16.7	14.6	12.9	414.9	494.3	19.1	35.0	38.6	10.9	10.6	−2.1
$250 to $1,000	5,051	6,302	24.8	16.4	15.5	125.8	157.6	25.3	10.6	12.3	40.2	40.0	−.4
$1,000 to $5,000	5,586	6,775	21.3	18.1	16.7	37.9	48.2	27.2	3.2	3.8	147.3	140.5	−4.6
$5,000 to $25,000	4,742	5,912	24.7	15.4	14.6	11.0	13.3	21.1	.9	1.0	432.8	445.7	3.0
$25,000 to $100,000	3,240	4,893	51.1	10.5	12.0	4.4	5.4	22.7	.4	.5	732.6	901.6	23.1
$100,000 or more	5,297	8,815	66.4	17.2	21.7	6.0	6.5	7.3	.5	.5	878.8	1,363.5	55.1
Not ascertained	853	1,207	36.7	2.9	3.0	82.0	50.7	−38.2	6.9	4.0	10.8	23.8	121.3

NOTE.—Details may not add to totals because of rounding.

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Within industry groups as well as for businesses as a whole, loan growth was much greater for large than for smaller firms, and generally declined with size of business, as shown in table 2. There were exceptions, however. In retail trade and in services, for example, loan growth to smaller firms was relatively large; loans to retailers with assets of $250,000 to $1 million rose more than those of any other size group. In all other industry groups, the largest percentage increase was in 1 of the 2 size groups with assets of $25 million or more, and generally growth for borrowers with assets of $100 million or more was by far the greatest.

A uniform classification of business size for all industries based solely on dollar amount of assets, as used in table 2, makes no allowance for the marked differences from industry to industry in the size of the typical enterprise. For example, a business of a given asset size might be considered relatively small in the metal fabricating industry but relatively large in the service trades. Accordingly, in table 3 borrowers are classified as large, medium, or small separately for each industry in relation to the size pattern of enterprises characteristic of that industry.

TABLE 2.—*Change in amount of business loans of member banks, 1955–57, by business and size of borrower*

[Increase, or decrease (−). In percent unless otherwise noted]

Business of borrower	Amount outstanding Oct. 16, 1957 (in millions of dollars)	Size of borrower (total assets, in thousands of dollars)							
		All borrowers [1]	Less than $50	$50 to $250	$250 to $1,000	$1,000 to $5,000	$5,000 to $25,000	$25,000 to $100,000	$100,000 or more
All businesses	40,618	31.9	−3.0	16.7	24.8	21.3	24.7	51.1	66.4
Manufacturing and mining:									
Food, liquor, and tobacco	2,392	28.0	−33.5	7.1	23.7	5.4	−4.6	8.5	104.5
Textiles, apparel, and leather	1,685	−3.0	−38.7	−20.7	−7.8	−4.0	−9.5	3.6	47.7
Metals and metal products	5,526	70.5	−18.2	20.1	20.2	46.7	35.1	106.1	151.2
Petroleum, coal, chemicals, and rubber	3,750	44.1	−16.2	2.2	40.3	18.3	7.2	20.4	138.1
All other	2,793	47.2	−7.2	8.4	20.1	46.1	76.1	82.7	119.2
Trade:									
Retail trade	4,588	33.2	3.4	28.3	51.4	48.7	32.3	36.6	33.7
Wholesale trade	2,982	24.7	−10.6	21.8	23.7	17.9	31.0	105.2	134.7
Commodity dealers	816	10.7	−18.8	13.4	44.2	−22.1	−2.4	61.2	20.2
Other:									
Sales finance companies	3,096	9.3	−32.5	−24.0	20.2	−6.6	7.5	36.3	5.9
Transportation, communication, and other public utilities	4,168	47.0	31.2	13.0	[10.5	[44.6	56.1	84.0	40.0
Construction	1,981	17.1	−7.7	9.4	9.3	23.6	−.5	101.2	310.0
Real estate	2,976	22.5	−24.9	9.9	23.3	17.1	27.6	109.3	19.9
Service firms	2,263	28.3	4.6	29.5	36.2	42.1	79.8	29.7	9.3
All other nonfinancial	1,606	20.4	6.0	18.0	26.9	−1.3	25.1	30.4	96.1

[1] Based on data that include a small amount of loans for borrowers whose size was not ascertained.

NOTE.—Details may not add to totals because of rounding.

TABLE 3.—*Business loans of member banks, 1955–57, by business and relative size of borrower* [1]

Business of borrower	Loans outstanding Oct. 5, 1955				Increase, or decrease (−), 1955–57						
	Millions of dollars	Percentage of industry total, by size of borrower [2]			Millions of dollars	Percentage of industry total, by size of borrower [2]			Percentage change, by size of borrower		
		Small	Medium	Large		Small	Medium	Large	Small	Medium	Large
All businesses	30,805	20.5	44.9	31.7	9,813	6.9	39.5	50.4	10.6	28.0	50.7
Manufacturing and mining:											
Food, liquor, and tobacco	1,869	21.4	55.4	22.4	523	10.0	6.2	83.7	13.0	3.1	104.5
Textiles, apparel, and leather	1,736	33.0	47.2	18.2	−53	[3] −154.4	[3] −95.3	[3] 157.1	−14.3	−6.2	26.3
Metals and metal products	3,241	38.7	36.1	24.0	2,285	16.6	32.0	51.4	30.2	62.5	151.2
Petroleum, coal, chemicals, and rubber	2,603	28.7	44.7	21.7	1,147	13.0	14.5	68.0	20.0	14.3	138.1
All other	1,896	18.6	61.8	18.4	895	2.1	58.9	38.0	5.4	45.0	97.5
Trade:											
Retail trade	3,445	13.8	51.0	33.1	1,144	1.4	56.9	38.9	3.4	37.1	39.0
Wholesale trade	2,392	23.9	56.5	17.8	590	16.0	48.4	37.2	16.5	21.1	51.5
Commodity dealers	736	8.9	36.5	52.3	79	7.4	12.7	78.7	8.9	3.7	16.2
Other:											
Sales finance companies	2,832	25.1	32.1	42.5	263	−2.7	74.9	27.1	−1.0	21.8	5.9
Transportation, communication, and public utilities	2,835	1.7	49.0	46.6	1,334	1.1	53.6	39.7	31.2	51.5	40.0
Construction	1,692	7.8	51.1	38.0	289	−3.5	27.9	62.8	−7.7	9.3	28.2
Real estate	2,430	24.4	22.7	44.7	546	4.1	23.5	52.6	3.7	23.3	26.4
Service firms	1,763	17.4	50.1	27.0	499	2.8	56.7	41.4	4.6	32.0	43.3
All other nonfinancial business	1,333	7.1	37.5	48.8	272	2.1	41.7	46.5	6.0	22.7	19.4

[1] For classification of borrower by relative size, see appendix A.
[2] Figures do not add to 100 percent because some loans were made to borrowers whose size was not ascertained.
[3] Net change for industry was a decrease; sign indicates direction of change for size group.

These data also show much greater overall loan growth between 1955 and 1957 for large businesses than for other size groups and growth within industries generally decreasing with size of business borrower. Large businesses with 32 percent of the outstanding loans in 1955 accounted for 50 percent of the 1955–57 increase in total business loans while small businesses with 21 percent of the outstandings in 1955 accounted for only 7 percent of the increase.

Half the increase in loans to large businesses was in three industry groups—metals and metal products; petroleum, coal, chemicals, and rubber; and transportation, communication, and other public utilities. This reflects not only the substantial growth rates for loans to large borrowers in these industries but also the fact that in some of these industries large businesses account for a major portion of the output. Loan growth to smaller concerns in these industries also was substantial, greater for medium and small metals concerns and public utilities than for these size groups in any other industries.

Not every industry group in which large businesses predominate showed rapid loan growth. Sales finance companies, also in this category, showed the smallest overall growth and the smallest growth in loans to large businesses. On the other hand, in textiles, leather, and apparel, the only industry group showing a loan decline, activity is distributed more heavily in medium-size and small businesses.

Output and prices

The rapid loan growth in the metals, petroleum-rubber, and public utilities industry groups was due in part to the fact that they experienced some of the largest increases in output between 1955 and 1957 and, except for the public utilities group, some of the largest price advances. In the textiles, leather, and apparel group, where output dropped and prices changed little, outstanding loans declined. Loan changes either in the aggregate or by individual industries cannot be explained fully, however, by changes in their output and prices. Loans to all manufacturing and mining businesses, for example, rose 42 percent from 1955 to 1957 whereas industrial production changed little and wholesale prices, on the average, rose less than 8 percent.

Changes in the loan structure for the construction industry reflect the changing character of demand for construction over the period, even though there was no marked change in this industry's total bank borrowing, output, or costs. Loans to construction firms with assets of $100 million or more showed the sharpest rise (317 percent) for any size group of borrowers in any industry, whereas smaller construction firms increased bank borrowing only moderately or reduced it (see table 2). Nevertheless, the 1955–57 pattern of borrowing is consistent with the fact that industrial and commercial construction, often involving large projects which can be undertaken only by firms of great size, increased substantially during this period while residential construction, in which firms of much smaller size predominate, declined.

Expansion of capacity

The 1955–57 changes in the size-of-borrower and industry structure of bank loans are related not only to changes in output and prices in the various industries but also to expansion of capacity and associated requirements for increased working capital. It is a significant that

three of the industries with most rapid loan growth, namely metals, petroleum-rubber, and public utilities, are among those showing the largest increases in capacity during the 1955–57 period. Information also is available from the Federal Trade Commission and the Securities and Exchange Commission providing insight into the pattern of expansion and its financing for manufacturing corporations of various sizes. This information is summarized in table 4.

TABLE 4.— *Broad summary of major outlays and sources of funds of manufacturing corporations, by size of business, 3d quarter 1955–3d quarter 1957*

Outlay or source [1]	All corporations		Size (total assets)					
			Under 5		5-100		100 and over	
	Millions of dollars	Percentage change	Millions of dollars	Percentage change	Millions of dollars	Percentage change	Millions of dollars	Percentage change
MAJOR OUTLAYS								
Property, plant, and equipment [2]	28,867	22.8	1,896	10.6	3,470	12.1	23,500	29.2
Inventories	11,914	27.0	1,648	18.9	2,283	17.5	7,984	35.5
Net receivables [3]	3,501	30.5	582	19.6	1,012	22.5	1,909	47.7
Total	44,282	24.3	4,126	14.0	6,765	14.7	33,393	31.3
MAJOR SOURCES OF FUNDS								
Retained earnings	17,079	----------	3,198	----------	4,397	----------	9,484	----------
Depreciation and depletion	17,519	----------	2,812	----------	3,516	----------	11,192	----------
Cash and Government securities	−3,490	−11.9	152	3.5	−843	−11.6	−2,802	−16.0
Borrowings:								
Bank loans:								
Short-term (1 year and under)	3,179	71.6	482	28.7	840	46.2	1,857	196.5
Long-term (over 1 year)	1,543	48.0	365	65.5	452	39.6	727	47.8
Total	4,722	61.7	847	37.9	1,292	43.7	2,584	104.8
Nonbank long-term	4,806	27.0	678	33.7	661	18.3	3,466	28.5

[1] Since only selected items are included, the aggregates of outlays and sources of funds are not in balance. The principal omission is net worth changes (other than retained earnings).
[2] Before deduction of reserve for depreciation and depletion.
[3] Accounts receivable minus accounts payable.

Source: Federal Trade Commission-Securities and Exchange Commission: Quarterly Financial Reports for Manufacturing Corporations.

The property, plant, and equipment account of manufacturing corporations with assets of $100 million or more rose at nearly three times the rate for smaller corporations between the third quarter of 1955 and the third quarter of 1957, and accounted for more than four-fifths the increase in plant and equipment of all manufacturing corporations over that period. Moreover, large corporation working capital rose much more rapidly than small. Inventories of the largest corporations increased at about twice the rate for smaller businesses, as did their net receivables, that is, accounts receivable minus accounts payable. The nearly $2 billion growth in net receivables of the largest corporations reflects primarily the extension of increased trade credit to customers, in large part smaller businesses, including unincorporated and nonmanufacturing businesses not covered by these data.

All sizes of manufacturing corporations had internal funds, particularly retained earnings, at least equal to the major part of their

increased outlays for plant and equipment, inventories, and net receivables. For all corporations with assets under $100 million, internal funds exceeded these outlays. For corporations with assets of $100 million or more, however, retained earnings and depreciation and depletion allowances totaled less than two-thirds of their major outlays. Accordingly, they found it necessary to obtain substantial additional funds through reducing their holdings of cash and Government securities, borrowing from banks, and financing in the capital markets.

Taking advantage of their access to the capital markets, the largest corporations increased their term borrowing from sources other than commercial banks nearly five times as much as their term borrowing at banks. They also sharply increased their short-term bank borrowing, probably in part to tide them over until the capital markets became more favorable for long-term financing. Nevertheless, corporate borrowing in the capital markets rose substantially over this period, reaching record high levels in 1957.

Smaller corporations also increased their borrowing, particularly in maturities over 1 year. More than one-third the increase in long-term borrowing by corporations with assets under $5 million was from banks. Short-term bank borrowing by these corporations rose at a slower rate than such borrowing by larger corporations, although the increase represented about the same proportion of short-term outlays (inventories and net receivables) as at larger corporations. Moreover, smaller corporations added to their holdings of cash and Government securities between 1955 and 1957, but corporations with assets of $5 to $100 million reduced their holdings of such liquid assets.

Data comparable to those in table 4 are not available for size of business within various manufacturing industries. Thus it is not possible to determine whether uses of funds for expansion were greater among large businesses than among smaller businesses in industries not rapidly expanding as well as in those showing marked growth.

LOAN MATURITY

In both 1955 and 1957, short-term loans were predominant in the business loan portfolios of member banks for all size groups of borrowers. Between 1955 and 1957, however, term loans (maturities over 1 year) expanded much more than loans with shorter maturities, and the ratio of term to total loans at all member banks rose from 34 to 38 percent, as shown in table 5. Movements in short-term loans between 1955 and 1957 varied considerably among borrower size groups, and were the principal factor accounting for the size-of-borrower differences in behavior of total loans over this period.

TABLE 5.—*Maturities of business loans outstanding at member banks Oct. 16, 1957, by size of borrower*

Size of borrower (total assets, in thousands)	Amount (in millions of dollars)				Number (in thousands)				Percentage increase, or decrease (−), 1955–57							
									Amount				Number			
	All maturities	1 year or less	1 to 5 years	Over 5 years	All maturities	1 year or less	1 to 5 years	Over 5 years	All maturities	1 year or less	1 to 5 years	Over 5 years	All maturities	1 year or less	1 to 5 years	Over 5 years
All borrowers	40,618	25,197	7,717	7,704	1,281	801	352	127	31.9	23.8	58.0	38.2	8.0	−2.3	31.3	31.2
Less than $50	1,456	783	412	261	505	295	172	37	−3.0	−15.0	21.0	8.7	.3	−12.4	30.5	8.7
$50 to $250	5,256	3,311	946	999	494	326	112	57	16.7	4.9	47.1	41.7	19.1	6.9	61.1	38.5
$250 to $1,000	6,302	4,506	1,004	792	158	108	32	17	24.8	17.4	48.6	47.7	25.3	13.8	59.7	63.1
$1,000 to $5,000	6,775	4,755	1,292	728	48	33	11	4	21.3	11.3	61.3	42.1	27.2	14.9	72.3	49.1
$5,000 to $25,000	5,912	3,600	1,277	1,036	13	9	3	1	24.7	17.5	52.6	23.0	21.2	10.4	77.5	8.9
$25,000 to $100,000	4,893	2,562	846	1,485	5	3	1	1	51.1	52.8	76.3	37.2	22.7	11.1	73.0	29.7
$100,000 or more	8,815	5,264	1,638	1,913	6	4	1	1	66.4	79.1	79.4	32.5	7.3	21.0	9.4	−18.5
Not ascertained	1,207	416	302	489	51	23	20	8	36.7	−13.4	57.0	132.6	−38.2	−42.9	−47.1	74.8

NOTE.—Details may not add to totals because of rounding.

The rise in the proportion of term loans, generally both those with intermediate maturities (1 to 5 years) as well as those with long maturities (over 5 years), occurred only among businesses with assets of less than $25 million. The smallest borrowers (assets under $50,000) showed the largest rise, from 39 to 46 percent, and in 1957 they had the largest proportion of term borrowing of any size group except businesses with assets of $25 to $100 million. However, the smallest borrowers also experienced a decline in the dollar amount of borrowing at short maturities (1 year or less) between 1955 and 1957.

Businesses with assets of $25 million or more, which had the largest proportions of loans with maturities over 5 years in 1955, increased their short- and intermediate-term borrowing most between 1955 and 1957, and the proportion of their long maturity loans declined. For businesses with assets of $100 million or more, growth in short-term loans accounted for two-thirds of the increase in their total bank borrowing over this period.

For borrowers with less than $25 million of assets, the ratio of terms to total loans rose between 1955 and 1957 at all size classes of banks, but most at the largest and smallest banks, as shown in table 6. For the largest businesses, particularly those with assets of $100 million or more, the decline in the proportion of term loans was mainly at big banks where these businesses do the bulk of their bank borrowing. In general, these banks also were more affected than smaller banks by changes in the availability of reserve funds over this period.

TABLE 6.—*Term loans as a percentage of business loans at member banks, 1955 and 1957, by size of borrower and size of bank*

Size of borrower (total assets, in thousands)	All banks		Size of bank (total deposits, in millions of dollars)							
			Under $10		$10 to $100		$100 to $1,000		$1,000 or more	
	1955	1957	1955	1957	1955	1957	1955	1957	1955	1957
All sizes[1]	33.9	38.0	27.1	34.7	27.2	32.1	28.5	31.1	42.3	45.6
Less than $50	38.7	46.2	33.9	43.5	38.3	42.6	41.2	48.5	48.0	60.1
$50 to $250	29.9	37.0	28.1	35.2	31.6	37.3	30.9	35.8	25.5	41.2
$250 to $1,000	24.0	28.5	15.9	23.2	24.7	30.7	24.7	29.3	23.0	24.3
$1,000 to $5,000	23.5	29.8	7.0	17.1	19.7	23.4	24.9	28.8	23.4	35.0
$5,000 to $25,000	35.4	39.1	11.0	14.1	18.5	19.7	29.6	32.9	41.0	45.0
$25,000 to $100,000	48.2	47.7	------	15.5	15.9	17.2	30.7	31.9	57.2	55.0
$100,000 and over	44.5	40.3	10.6	6.8	14.6	13.7	31.0	25.4	51.0	45.3

[1] Includes a small amount of loans for borrowers whose size was not ascertained.

The more rapid growth between 1955 and 1957 in term loans than in short maturities for small and medium-size businesses reflects the increased outlays during this period for expansion of plant and equipment requiring relatively long-term financing. Smaller borrowers in particular, whose access to financing through the securities markets is limited, relied to a considerable extent on banks to supply intermediate- and long-term funds for these purposes, although they expanded productive capacity less than large businesses. That banks, in a period of credit restraint, were willing to expand term loans to smaller borrowers more rapidly than short-maturity loans may re-

flect, in part, the fact that these loans were largely installment loans bearing relatively high rates of interest or loans secured by real estate. It may also indicate that small borrowers were making increased use of trade credit to meet short-term needs, as suggested by the large rise in net receivables of large corporations referred to earlier.

The emphasis on short-term borrowing by large businesses between 1955 and 1957 suggests that they satisfied a greater proportion of their long-term financing needs through the securities markets. As previously indicated, large manufacturing corporations increased their term borrowing from nonbank sources five times as much as their term borrowing at commercial banks. They may also have increased their short-term borrowing from banks to tide them over until conditions for long-term financing in the securities markets became more favorable. In view of their high credit standing, large businesses probably could do this with assurance that their notes would be renewed for as long as they needed the funds. The record volume of corporate securities issued in 1956 and the first 9 months of 1957 would have permitted substantial retirement of short-term interim financing prior to the October 1957 survey date.

SECURED VERSUS UNSECURED LOANS

In both 1955 and 1957, the bulk of the dollar amount of loans outstanding to small borrowers was secured by collateral, endorsed, or guaranteed by someone other than the borrower. In contrast, only about one-sixth of the loans to the largest borrowers was secured, as shown in table 7. The proportion of secured loans rose slightly between 1955 and 1957 for all size classes of business except the smallest, that is, firms with assets less than $50,000. Secured loans to small borrowers, on the average, were larger than unsecured loans, but in the case of larger borrowers, secured loans tended to be smaller than the unsecured.

Emphasis on security varied with maturity of loan, but was greater for small borrowers than for larger borrowers in all maturity ranges. Of the outstanding short-maturity loans, preferred by banks for reasons of both safety and liquidity, only 44 percent was secured in October 1957. The percentage ranged by size of borrower from 13 percent for those with assets of $100 million or more to 66 percent for those with assets less than $50,000. Over three-fifths of the intermediate- and long-maturity loans was secured. Nearly every loan with a maturity of more than 5 years to borrowers with assets less than $1 million in October 1957 carried some kind of security, generally real estate, but two-thirds of the number and nearly one-third the dollar amount of loans to the largest borrower group also were secured.

Collateral or other security was required somewhat less at smaller than at larger banks on short-term loans to most smaller borrowers. On term loans to these borrowers, and on loans in all maturity ranges to larger borrowers, the secured proportion was about the same at all sizes of banks.

The 1955–57 rise in the proportion of secured loans for most borrower size groups shown in table 7 is largely attributable to more rapid growth over that period in types of loans on which security requirements previously had been relatively high. For smaller borrowers, there was a more rapid expansion in term borrowing than in short-term borrowing. For larger borrowers, there were differential rates of growth in loans among industries—for example, more rapid expansion in loans to public utilities than to sales finance companies. It does not appear that banks appreciably altered their emphasis on security as credit availability became more restricted.

TABLE 7.—*Relation of secured loans to total business loans of member banks, 1955 and 1957, within size-of-borrower groups*

Size of borrower (total assets, in thousands)	Amount						Number					
	Total loans (in millions of dollars)		Secured loans				Total loans (in thousands)		Secured loans			
			Millions of dollars		Percentage of total for size group				Thousands		Percentage of total for size group	
	1955	1957	1955	1957	1955	1957	1955	1957	1955	1957	1955	1957
All sizes [1]	30,805	40,618	15,700	20,426	51.0	50.3	1,185	1,281	799	856	67.4	66.8
Less than $50	1,501	1,456	1,191	1,141	79.3	78.4	503	505	347	344	69.0	68.2
$50 to $250	4,505	5,256	3,374	4,023	74.9	76.5	415	494	270	325	65.1	65.7
$250 to $1,000	5,051	6,302	3,452	4,543	68.3	72.1	126	158	80	104	63.3	65.9
$1,000 to $5,000	5,586	6,775	3,296	4,056	59.0	59.9	38	48	22	29	58.6	60.7
$5,000 to $25,000	4,742	5,912	1,996	2,661	42.1	45.0	11	13	4	6	39.3	48.5
$25,000 to $100,000	3,240	4,893	828	1,381	25.6	28.2	4	5	1	2	29.0	31.7
$100,000 or more	5,297	8,815	784	1,546	14.8	17.5	6	6	2	2	37.8	34.7

[1] Includes a small amount of loans to borrowers whose size was not ascertained.

SIZE AND LOCATION OF BANK

Small businesses borrow from both large and small banks, but large businesses, of necessity, borrow primarily from large banks, as shown in table 8. To a limited extent, large businesses also borrow from small banks, often through participation arrangements between small banks and their large city correspondents.

TABLE 8.—*Relative size of business borrowers at member banks, by size of bank* [1]

Size of borrower	All banks	Size of bank (total deposits in millions of dollars)			
		Under 10	10 to 100	100 to 1,000	1,000 and over
	Amount outstanding, Oct. 16, 1957 (in millions of dollars)				
All borrowers [2]	40,618	1,684	6,439	14,192	18,304
Small	7,001	792	2,082	2,613	1,514
Medium	17,706	814	3,446	6,686	6,761
Large	14,704	38	715	4,517	9,434
	Percentage distribution within size-of-borrower group				
All borrowers [2]	100.0	4.1	15.9	34.9	45.1
Small	100.0	11.3	29.7	37.3	21.6
Medium	100.0	4.6	19.5	37.8	38.2
Large	100.0	.3	4.9	30.7	64.2
	Percentage increase, or decrease (−), in amount outstanding, 1955–57				
All borrowers [2]	31.9	12.0	21.7	27.4	42.2
Small	10.6	5.0	11.3	10.3	13.5
Medium	28.0	22.9	26.4	25.5	32.0
Large	50.7	−1.8	31.2	38.7	59.3

[1] For classification of borrowers by relative size, see appendix A.
[2] Includes a small amount of loans for borrowers whose size was not ascertained.

Growth in business lending between 1955 and 1957 varied with size of bank, ranging from 12 percent for banks with deposits of less than $10 million to 42 percent for banks with deposits of $1 billion or more. The rapid growth at large banks reflects mainly the relatively rapid growth in financing needs of large businesses associated with expansion of productive capacity. Loans to large businesses rose much faster at the largest banks than at banks in any other size class. Loans to small businesses at large banks also went up more than loans to smaller businesses at smaller banks. Within bank size classes, loan growth varied with size of business. At the smallest banks, loans to small businesses showed the least growth, increasing only 5 percent, or about one-third the rate at the largest banks. These small banks, located to a large extent in agricultural communities, account for only about one-tenth of total bank lending to small businesses.

Pressures of monetary restraint varied with size of bank, being more at large banks and less at smaller banks. Large banks had little deposit growth between 1955 and 1957. To expand loans, they substantially reduced their holdings of United States Government securities and their excess reserves and borrowed from the Reserve banks. In general, at smaller banks, deposit growth was greater and there was less resort to reductions of Government security holdings and excess reserves, and to borrowing from the Reserve banks.

The slower growth in loans to small than to larger businesses reflects both a slower growth in total loans at small banks, which lend primarily to small businesses, and a slower growth in loans to small

than to larger businesses within size classes of banks. It does not appear that monetary restraint was a major factor contributing to the relatively slow growth in total business loans at smaller banks. However, monetary restraint may have contributed, to some extent, to the slower growth in loans to small than to larger businesses within the various size classes of banks, particularly the larger banks, although the evidence from the loan surveys alone is not sufficient on this point.

Banks located in areas of rapid industrial expansion, such as the San Francisco, Cleveland, and Chicago Federal Reserve Districts, generally increased business lending the most between 1955 and 1957. These areas also showed relatively large increases in loans to small businesses, as shown in table 9. Business loan expansion also was high in the New York district, reflecting in large part extensive lending by New York City banks to large industrial enterprises in other parts of the country as well as New York. The districts showing the smallest growth in total loans, namely Dallas and St. Louis, were the only districts in which loans to small businesses declined. It would appear that a major factor governing regional differences in loan expansion to small businesses and to businesses generally between 1955 and 1957 was the regional pattern of economic activity and related credit demands.

TABLE 9.—*Regional change in business loans of member banks, 1955–57, by relative size of borrower*[1]

[Percentage increase, or decrease (−), in amounts outstanding]

Federal Reserve district	All borrowers[2]	Relative size of borrower		
		Small	Medium	Large
All districts	31.9	10.6	28.0	50.7
Boston	20.1	.1	23.8	36.8
New York	35.8	.6	28.5	55.0
Philadelphia	17.7	9.8	16.8	18.4
Cleveland	43.4	22.4	40.8	65.1
Richmond	20.8	6.7	24.1	32.1
Atlanta	26.5	18.2	26.1	51.1
Chicago	35.0	11.3	22.7	59.9
St. Louis	16.1	−15.6	2.4	33.3
Minneapolis	20.5	2.1	35.3	11.6
Kansas City	17.7	17.2	16.2	29.5
Dallas	10.4	−7.6	17.0	21.1
San Francisco	50.6	46.1	52.1	61.0

[1] For classification of borrowers by relative size, see appendix A.
[2] Includes a small amount of loans for borrowers whose size was not ascertained.

INTEREST RATES

It has long been recognized that small businesses generally pay higher interest rates on bank loans than large businesses. Average interest rates on member bank loans made after June 30, 1957, and outstanding on October 16 of that year ranged from 4.4 percent on loans to the largest borrowers to 6.5 percent on loans to the smallest, as shown in table 10. Between the summer of 1955 and the summer of 1957, when average interest rates on all new loans rose from 4.2 to 4.9 percent, average rates on short-term loans to large borrowers rose twice as much absolutely, and even more relatively as on loans to small bor-

rowers. Rates on longer maturities also generally rose more for larger borrowers but the growth differences were less.

As a result of these differences in rate changes, the spread in rates between the largest and smallest businesses declined from 2.5 percentage points in 1955 to 2.1 percentage points in 1957. In the short maturities, where the largest volume of loans is made, the spread declined from 2.3 to 1.7 percentage points. During this 2-year period, bank requirements that borrowers maintain compensating balances also became more widespread and more stringent. Since these requirements apply mainly to large borrowers, it is likely that differences in effective interest rates charged large and small borrowers narrowed even more than the pure interest rate data indicate.

TABLE 10.—*Interest rates on member bank loans to business, 1955 and 1957, by size of borrower and maturity of loan*

[Average rates on loans made between July 1 and survey date. Percent per annum.]

Size of borrower (total assets, in thousands)	1955				1957				Net increase, 1955–57			
	All loans	Short-term (1 year or less)	Intermediate-term (1 to 5 years)	Long-term (over 5 years)	All loans	Short-term (1 year or less)	Intermediate-term (1 to 5 years)	Long-term (over 5 years)	All loans	Short-term (1 year or less)	Intermediate-term (1 to 5 years)	Long-term (over 5 years)
All sizes [1]	4.2	4.2	4.9	4.1	4.9	5.0	5.7	4.7	0.7	0.8	0.7	0.6
Less than $50	5.8	5.5	7.9	5.2	6.5	6.1	8.7	5.8	.7	.6	.8	.6
$50 to $250	5.1	5.0	6.2	5.0	5.7	5.6	7.1	5.6	.6	.6	.8	.6
$250 to $1,000	4.6	4.6	5.2	4.8	5.4	5.4	6.0	5.4	.8	.8	.8	.6
$1,000 to $5,000	4.1	4.1	4.6	4.3	5.1	5.1	5.7	5.1	1.0	1.0	1.1	.8
$5,000 to $25,000	3.7	3.7	3.9	4.1	4.8	4.8	4.9	4.8	1.1	1.1	1.1	.7
$25,000 to $100,000	3.4	3.4	3.9	3.6	4.5	4.6	4.6	4.3	1.1	1.2	.7	.8
$100,000 and over	3.3	3.2	3.2	3.6	4.4	4.4	4.4	3.9	1.2	1.2	1.2	.3

[1] Includes a small amount of loans for borrowers whose size was not ascertained.

Interest rate differences relating to differences in loan maturity were pronounced only among smaller businesses, particularly those with assets of less than $5 million. These borrowers paid higher rates in both years on loans with 1 to 5 year maturities than on either short-term or long-term loans. In part, this differential reflects financing of purchases of machinery and equipment by installment loans carrying relatively high effective interest rates. These loans, which many banks administer through their consumer installment loan departments, ordinarily carry interest rates more comparable to those on consumer durable goods installment paper than on ordinary business loans. Most of the longer term loans to smaller businesses in 1957 were real estate loans which, on the average, were considerably larger than installment loans and carried lower interest rates. Rates charged the largest borrowers in all maturities were close to the prime rate in both 1955 and 1957.[4]

A major factor in interest rate differences by size of borrower is the wide variation in rates by size of loan. Loan size generally corresponds with size of borrower. Average rates on loans outstanding on October 16, 1957, varied from 4.4 percent on loans of $500,000 or

[4] The prime rate charged by leading commercial banks on loans to businesses of the highest credit standing was raised between July 1 and the survey date in both 1955 and 1957. It went up from 3 to 3¼ percent in August 1955 and from 4 to 4½ percent in August 1957.

more to 6.7 percent on loans less than $10,000. This is attributable in part to the fact that the costs of making and administering a loan, which must be recovered through the interest charge, tend to be a higher percentage of the principal amount of small loans than of large loans.

Rates varied inversely with size of loan for large borrowers as well as small borrowers. However, for a loan of any given size, small borrowers paid a higher rate than large borrowers in both 1955 and 1957, presumably because of the higher risks ordinarily associated with lending to smaller firms and the higher administrative costs per dollar of loan. In October 1957 outstanding loans in all size ranges to the largest borrowers carried interest rates 1 percentage point or more lower than the same size loans to the smallest borrowers. Between 1955 and 1957 average rates on loans to businesses with assets of $5 million or more rose 1 percentage point or more in nearly all loan sizes. Average rates rose only about one-half percentage point in all loan sizes of less than $50,000 to borrowers with assets less than $250,000, but these were the loan categories for which average rates generally were highest in both 1955 and 1957.

Most borrowers pay about the same rate of interest on their loans regardless of the size of bank from which they borrow, as shown in table 11. The major exception is that rates on loans to small businesses are slightly higher at large than at small banks, reflecting in part relatively more lending by these banks on longer term higher interest bearing installment loans. Between 1955 and 1957 all size classes of banks raised rates less on loans to small businesses than on loans to large businesses.

TABLE 11.—*Size-of-bank variations in interest rates on business loans, by size of borrower*

[Average rates at member banks, Oct. 16, 1957, and net increases, 1955–57. Percent per annum]

Size of borrower (total assets, in thousands)	Size of bank (total deposits in millions of dollars)									
	Average interest rate, Oct. 16, 1957					Net increase, 1955–57				
	All banks	Under $10	$10 to $100	$100 to $1,000	$1,000 and over	All banks	Under $10	$10 to $100	$100 to $1,000	$1,000 and over
All borrowers [1]	4.9	5.9	5.4	5.0	4.6	0.7	0.3	0.6	0.8	0.8
Less than $50	6.5	6.5	6.4	6.6	6.9	.6	.4	.6	.8	.7
$50 to $250	5.7	5.8	5.6	5.7	5.9	.6	.3	.5	.7	.8
$250 to $1,000	5.4	5.4	5.3	5.3	5.5	.7	.4	.5	.7	.9
$1,000 to $5,000	5.1	4.8	5.1	5.1	5.0	.9	.5	.6	.9	.9
$5,000 to $25,000	4.7	4.8	4.8	4.7	4.6	.8	1.1	.9	.9	.8
$25,000 to $100,000	4.3	4.8	4.5	4.4	4.3	.9	2.2	1.1	1.0	.8
$100,000 or more	4.1	4.2	4.3	4.2	4.0	1.0	1.6	1.2	1.1	.9

[1] Includes a small amount of loans for borrowers whose size was not ascertained.

Although average interest rates were considerably higher on loans to small borrowers than on loans to large borrowers, an appreciable volume of small business lending was at rates typical of those charged large businesses. In October 1957, when the largest proportion of both dollar amount and number of loans to businesses with assets of $25 million or more had interest rates of 4 to 4.99 percent, 38 percent of the loans to businesses with assets of $250,000 to $25 million and 11 percent of the loans to businesses with assets of less than $250,000

also carried rates within this range. Conversely, only a small dollar amount but an appreciable number of loans to large businesses fell in the 6- to 7.99-percent range, where the number and dollar amount of loans to small borrowers was particularly heavy.

There are indications that 6 percent may represent, in the case of some banks at least, an effective rate ceiling on loans to small borrowers. This is suggested by the heavy concentration of loans to small borrowers in the 6- to 8-percent range in both 1955 and 1957 and by the fact that within this range the average interest rate on loans to small borrowers approximated 6 percent in both years. In many areas of the country, usury laws and banking tradition prevent nominal or stated rates from going above 6 percent.

One possible result of such limitations during a period of rising interest rates is to reduce the relative profitability of loans previously made at ceiling levels as rates on loans previously made below those ceilings are raised. Most affected by these limitations are loans, particularly short-term loans, on which the effective interest rate is close to the nominal or stated rate subject to the ceilings. On installment loans with interest calculated on original amount of the loan, however, effective rates generally are close to twice the nominal or stated rates. In many jurisdictions, the applicable ceiling on such loans is the nominal rate rather than the effective rate. It is perhaps significant that short-term loans to small borrowers showed least growth or declined between 1955 and 1957, whereas those with intermediate maturities, mainly installment loans, rose considerably.

LOANS TO NEW BUSINESSES

Information was obtained in the October 16, 1957, survey on loans to new businesses, that is, businesses formed within 24 months bofere the survey. On the survey date, member banks had 107,000 loans totaling nearly $2 billion outstanding to these relatively new businesses, as shown in table 12. These loans accounted for 5 percent of the amount and 8 percent of the number of all outstanding member bank loans to business. Three-fifths of the number but less than one-third of the dollar amount of these loans was to trade and service firms, but manufacturing and mining and real estate concerns also accounted for a substantial share.

TABLE 12.—*Loans to new businesses in relation to total member bank loans to business, Oct. 16, 1957, by business of borrower*

Business of borrower	Amount			Number			Percentage distribution			
	In millions of dollars		New as a percentage of all businesses	In thousands		New as a percentage of all businesses	Amount		Number	
	All businesses	New businesses [1]		All businesses	New businesses [1]		All businesses	New businesses [1]	All businesses	New businesses [1]
All businesses	40,618	1,992	4.9	1,281	107	8.4	100.0	100.0	100.0	100.0
Manufacturing and mining	16,144	489	3.0	211	13	6.4	39.7	24.6	16.5	12.6
Trade	8,386	347	4.1	507	42	8.4	20.6	17.4	39.6	39.6
Others:										
Sales, finance companies	3,095	109	3.5	12	1	5.1	7.6	5.5	.9	.6
Transportation, communication, and other public utilities	4,169	172	4.1	49	4	8.9	10.3	8.6	3.8	4.1
Construction	1,980	180	9.1	108	9	8.0	4.9	9.0	8.4	8.0
Real estate	2,976	358	12.0	82	8	9.8	7.3	18.0	6.4	7.5
Service firms	2,262	226	10.0	230	24	10.5	5.6	11.3	17.9	22.6
All other nonfinancial business	1,605	111	6.9	83	5	6.4	4.0	5.6	6.5	5.0

[1] Businesses formed within 24 months before Oct. 16, 1957.

NOTE.—Details may not add to totals because of rounding.

As might be expected, most of the new businesses borrowing these funds ewre uincorporated and relatively small. Businesses with assets of less than $250,000 accounted for nearly 90 percent of the number but less than one-third the dollar amount of all loans to new businesses, as shown in table 13. New businesses borrowed to a greater extent on term loans than established businesses and a much higher proportion of their loans was secured. Average interest rates were less than one-third of 1 percent higher on loans to new businesses than on loans to established businesses in all size groups.

TABLE 13.—*Selected loan and borrower characteristics of member bank loans to new and established businesses*

[Percentage of loans outstanding to each type of business, Oct. 16, 1957]

Characteristic	New businesses [1]		Established businesses	
	Amount	Number	Amount	Number
Loans to borrowers with assets of less than $250,000	31.2	87.7	15.8	77.1
Loans to unincorporated businesses	26.8	71.1	18.6	68.0
Term loans	45.9	38.7	37.6	37.3
Secured loans	76.0	72.0	49.0	66.3

[1] Businesses formed within 24 months before Oct. 16, 1957.

APPENDIX A

Classification of borrowers by industry and relative size

Industry	Size (assets, in thousands of dollars)		
	Small	Medium	Large
Manufacturing and mining:			
Food, liquor, and tobacco	Under 1,000	1,000 to 100,000	100,000 or more.
Textiles, apparel, and leather	do	1,000 to 25,000	25,000 or more.
Metals and metal products	Under 5,000	5,000 to 100,000	100,000 or more.
Petroleum, coal, chemicals, and rubber	do	do	Do.
All other	Under 250	250 to 25,000	25,000 or more.
Trade:			
Retail trade	Under 50	50 to 1,000	1,000 or more.
Wholesale trade	Under 250	250 to 5,000	5,000 or more.
Commodity dealers	do	do	Do.
Other:			
Sales finance companies	Under 5,000	5,000 to 100,000	100,000 or more.
Transportation, communication, and other public utilities.	Under 50	50 to 100,000	Do.
Construction	do	50 to 1,000	1,000 or more.
Real estate	Under 250	250 to 1,000	Do.
Service firms	Under 50	50 to 1,000	Do.
All other nonfinancial business	do	do	Do.

APPENDIX B

SURVEY OF BANK LOANS FOR COMMERCIAL AND INDUSTRIAL PURPOSES OUTSTANDING ON OCTOBER 16, 1957

This survey is designed to provide information on bank loans made for commercial and industrial purposes outstanding on October 16, 1957. Please complete this reporting form according to the following instructions and mail it to your Federal Reserve bank not later than October 30, 1957.

For your convenience a column has been provided on the form for the names of the borrowers whose loans are reported. Before submitting your report detach this column. Please save it for 60 days so that if the Federal Reserve bank has a question concerning any particular loan which you report, the loan can be readily identified by you from the detached sheets.

All information which you report will be held in strict confidence. The results of the survey will be published only in the form of totals for groups of banks.

Loan coverage

You are being asked to make a report on all of your loans for business purposes made to individuals, partnerships, or corporations, whether secured or unsecured, whether for the purpose of financing capital expenditures or current operations, and irrespective of their normal classification for call report purposes.

Be sure to include commercial and industrial loans carried in GI or installment loan departments. These loans should be classified in schedule A, item 5, of the call report. No matter where they have been classified for call-report purposes, however, they should be included in the survey. Omission of these loans from your report could cause the survey results to understate seriously the volume of bank loans to small business.

Reporting procedure

Caution: It is absolutely essential that you follow the instructions and do not make any changes in the procedures for selecting the loans you report.

1. Separate or identify in your loan files in any fashion convenient for you each of the following groups of loans:

Group A—Open market paper (for a definition, see box on top of next page).

Group B—Real estate loans for commercial and industrial purposes.

Group C—All other loans for commercial and industrial purposes, including small installment loans.

2. Total the amount of loans outstanding on October 16, 1957, in each of these groups and enter the totals in the box on the top of the next page.

3. No further information is requested on the paper reported in group A.

4. For groups B and C report the detailed information requested on the form for each such loan outstanding on October 16, 1957.

If your bank is a branch institution, the same procedure should be followed at each branch. Branch reports should be consolidated at the head office before submission to the Federal Reserve bank. The figures in the box should cover the entire bank.

SHEET NO. _____

SHEET NO. _____

Form F.R. 643c (Rev. 9-57)
Form Approved
Budget Bureau No. 55-5702
Approval expires 1-31-58

SCHEDULE OF LOANS FOR COMMERCIAL AND INDUSTRIAL PURPOSES OUTSTANDING ON OCTOBER 16, 1957

(For banks with total deposits on 6-30-55 of less than $10 million)

CONFIDENTIAL

Name of Bank _____
Name of Branch _____
City _____
State _____

Person at your bank to be contacted if there are questions about form.

NAME _____ TITLE _____

DO NOT USE

STATE	BANK NUMBER	BRANCH NUMBER

DETACH BEFORE MAILING
Save for 60 days

FILL OUT THIS BOX ON FIRST SHEET ONLY

1. Total amount of real estate loans for commercial and industrial purposes outstanding on October 16, 1957 (such loans are classified in the Call Report under Schedule A, Item 1) . . . . . $ _____
2. Total amount of commercial and industrial loans (as defined by the Call Report instructions and classified under Schedule A, Item 5) outstanding on October 16, 1957:
   (a) Open market paper (see definition at right)
   (1) Bankers' acceptances . . . . . $ _____
   (2) Finance company paper (purchased directly or acquired through dealers) . . . . . $ _____
   (3) All other commercial paper . . . . . $ _____
   (b) All other commercial and industrial loans . . . . . $ _____
   (c) Total commercial and industrial loans (a + b) . . . . . $ _____
3. All loans for commercial and industrial purposes (1 + 2) . . . . . $ _____

Real estate loans for commercial purposes include all loans granted for commercial or industrial purposes but classified in the Call Report as real estate loans because they are secured by a mortgage.

Open Market Paper (this type of paper is to be reported in totals by type only; it is not to be reported in detail below)
Bankers' acceptances--include in reported total all acceptances held by you whether drawn on your bank or another bank.
Finance company paper--include short-term, negotiable notes of sales finance companies purchased either from the company directly or from a dealer.
All other commercial paper--include short-term, negotiable notes of business concerns purchased from commercial paper dealers.

All other commercial and industrial loans include loans negotiated directly between the bank and the borrower, loan participations arranged by or purchased from other banks, and promissory notes or other receivables discounted for bank customers.

NOTE: Please see instructions on loan coverage and reporting procedure on the reverse side of this sheet before filling out this form.

Name of borrower	1 Business of borrower (enter code from instructions at left)	2 Total assets of borrower (approximate dollar amount of a recent date; estimate if necessary)	3 Form of business organization (check one) Incorporated	4 Form of business organization (check one) Unincorporated	5 Was business started within last 24 months?	6 Call Report Sched. A number (see instructions at left)	7 Amount of loan (see instructions at left) Amount outstanding on October 16, 1957 (omit cents)	7 Check if Blank	8 Original amount of current outstandings (omit cents)	9 Date made: month, day and year (see instructions at left)	10 Date due: month, day and year (see instructions at left)	11 Effective interest rate (annual rate on unpaid balance; see instructions at left)	12 Is loan repayable in instalments with interest computed on original amt. of loan?	13 Security (check one) (see instructions at left) Unsecured	14 Security (check one) (see instructions at left) All other
Example John White and Company	13	$25,000		✓											
Example XYZ Manufacturing Company	3	$1,500,000	✓		Yes	1	$1,066		$1,500	6-1-57	5-31-58	11.00	Yes		✓
					No	5	$50,000		$50,000	9-15-57	11-15-57	5.25	No	✓	

INSTRUCTIONS

Column 1. In Column 1 enter whichever one of the

INSTRUCTIONS

Column 1. In Column 1 enter whichever one of the code numbers shown below best describes the largest part of the borrower's business. Use only one code number for each loan.

Include in your report (in the summary box and in the detailed reporting section) loans to sales finance companies, real estate companies, and mortgage companies. Exclude loans to all other financial institutions (insurance companies, savings and loan associations, etc.) and nonprofit organizations.

CODE	BUSINESS OF BORROWER
	Manufacturing and Mining
1	Food, liquor, and tobacco (exclude loans to farmers)
2	Textiles, apparel, and leather
3	Metal and metals products (including iron, steel and non-ferrous metals and their products; electrical and other machinery; and automobiles and other transportation equipment and parts)
4	Petroleum, coal, chemicals, and rubber
5	All other manufacturing and mining (including lumber; furniture; paper; printing and publishing; and stone, clay, and glass)
	Trade
6	Wholesale trade (including concerns selling to businesses as final buyers; also grain elevators)
7	Retail trade
	Other
8	Commodity dealers (establishments primarily engaged in buying and selling commodity contracts and which are members, or associated with members of recognized commodity exchanges)
9	Sales finance companies (firms primarily engaged in financing retail sales made on the instalment plan; exclude personal finance companies and other companies whose primary business is cash loans to individuals)
10	Transportation, communication, and other public utilities
11	Construction (including operative builders)
12	Real estate (including operators, owners, agents, brokers, subdividers and developers of real property, and mortgage companies)
13	Service firms (including hotels; repair services; amusements, personal and domestic services; and medical, legal, and other professional services)
14	All other nonfinancial business

Column 2. Every effort should be made to obtain the total assets of the borrower, do not substitute net worth.

Column 6. Enter item number under which loan would be classified in Schedule A of the Call Report: for a loan classified in the Call Report as "commercial and industrial" enter 5, and for a loan classified as "real estate" enter 1, etc.

Column 7. If several notes or advances outstanding to a single borrower represent different loan arrangements, treat each note or advance separately in selecting the sample of loans you report. But if several notes are outstanding under the same arrangement (for example, floor planning, accounts receivable financing, and construction loans on which drawings are made as required), combine the outstanding notes or advances and report them as one loan. In cases in which a series of notes or advances should be combined, the security is usually identical.

Exclude interest and service charges.

Column 8. If a series of notes or advances have been combined in accordance with the instructions for Column 7, enter the total of the original amounts of the notes presently outstanding. The amount shown in this column should in no case be less than the amount shown in Column 7.

Exclude interest and service charges.

Column 9. If the loan has been renewed, show the date of last renewal or renegotiation. If the loan is a combination of a series of notes, enter date of first note or advance.

Column 10. If the loan is an instalment loan or a combination of a series of notes, enter the date on which the last payment is due.

For a demand note, enter the word "demand"; however, if it is demand only in the sense that it becomes due immediately if some condition of the loan contract is not met, and repayment is actually scheduled for some future date, enter the scheduled repayment date.

Column 11. For a single-payment loan or a loan repayable in instalments on which the interest charge is computed periodically on the unpaid balance, the effective interest rate is the same as the stated or nominal rate. For a loan repayable in instalments on which the interest charge is computed on the original amount of the loan, either on a discount or an add-on basis, the effective rate is higher than the stated rate. For example, if the loan is repayable in full in equal instalments, the effective rate is nearly twice the stated rate.

If more than one rate is charged under a serial note or other loan arrangement, report the average effective rate.

Columns 13-14. Check column 13 if loan is one-name paper and not endorsed, guaranteed, or secured by collateral. Check column 14 if loan is endorsed, guaranteed, or secured by some form of collateral, including a lease.

III. COMMERCIAL BANKS [1]

Commercial banks are, by far, the largest single institutional suppliers of funds to small business.[2] Data from the business-loan survey indicate that in October 1957 member banks had outstanding to small businesses 685,000 individual loans involving $6.9 billion. More than any other single group in the financial community, commercial bankers have close connections with small-business men, both through their boards of directors and customers. Thus, they are familiar with the activities and problems of small businesses from daily contact.

For these reasons, in any attempt to analyze the various sources of financing of small business, it is, obviously, of importance to consider the nature of commercial-bank activity in this field. The approach to the question has been twofold. Considerable detailed data have been derived from a statistical survey of business loans outstanding at commercial banks as of October 16, 1957. This survey provides basic benchmark information on the magnitude and important attributes of loans to small business and, by comparison with a similar

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[1] David P. Eastburn, vice president, Federal Reserve Bank of Philadelphia, and John J. Balles, assistant vice president, Federal Reserve Bank of Cleveland, prepared this report. They also participated in the planning of the survey and in the interviewing. System staff associated with them in directing the interviewing and reporting the results are as follows:

Federal Reserve Bank of Boston; Paul S. Anderson, assistant financial economist, Weston Bonney, examiner; Federal Reserve Bank of New York, Lawrence S. Ritter, economist; Federal Reserve Bank of Philadelphia, Lawrence C. Murdoch, Jr., assistant economist; Federal Reserve Bank of Cleveland, Oliver H. Jones, senior economist, and James E. Wert, senior economist; Federal Reserve Bank of Richmond, R. Pierce Lumpkin, senior economist; Federal Reserve Bank of Atlanta, Harry Brandt, financial economist; Federal Reserve Bank of Chicago, Harold L. Cheadle, senior economist, Otis Radford, manager, credit department, Detroit branch, and Theodore H. Schneider, economist; Federal Reserve Bank of St. Louis, Norman N. Bowsher, economist, Delbert C. Hastings, manager, research department, and William E. Walker, assistant vice president; Federal Reserve Bank of Minneapolis, Oscar F. Litterer, business economist; Federal Reserve Bank of Kansas City, D. R. Cawthorne, financial economist, and Lyle E. Gramley, financial economist; Federal Reserve Bank of Dallas, Leslie C. Peacock, financial economist; Federal Reserve Bank of San Francisco, Gault W. Lynn, senior economist.

David O. Eastburn, vice president in charge of research, Federal Reserve Bank of Philadelphia; graduated Amherst College, 1942; master of arts degree, 1945; doctor of philosophy degree, 1957, University of Pennsylvania. He has been an instructor of finance at the University of Pennsylvania and lecturer at the School of Banking of the South and the School of Banking at the University of Wisconsin; has been with the Federal Reserve Bank of Philadelphia since 1942, contributing to the bank's publications and speaking on financial and economic topics.

John J. Balles received bachelor of science degree in commerce, 1942, and master of arts degree in economics, 1947, University of Iowa; doctor of philosophy degree in economics, Ohio State University, 1951. Subject of his doctoral dissertation was Federal Reserve Monetary Policy in Transition, 1940–50. At the time Mr. Balles joined the staff of the Federal Reserve Bank of Cleveland in 1954, he had been for some time an assistant professor of economics at Ohio State University. He is coauthor of a money and banking text, Principles of Money and Banking, by Lindholm, Balles, and Hunter, published in 1954 by W. W. Norton & Co.; has made a number of contributions to the monthly business review of this bank, among the most recent of which are Loans to Business by Member Banks, May 1956 issue; Business Loans: Interest Rates and Loans to Small Borrowers, June 1956 issue; and Continuous Borrowing Through Short-Term Bank Loans, in the September 1956 issue.

[2] For purposes of this report, as well as the business-loan survey, the definition of "small business" was based on amount of total assets and varied among types of businesses. For example, in retail trade, any concern with total assets of less than $50,000 was considered small; in the manufacture of metal products, a small business was any concern with total assets of less than $5 million. While these definitions may appear somewhat arbitrary, they were derived from careful study of the nature of various types of businesses, and are greatly preferable to any standard applying uniformly to all types of businesses. Size classifications used in the definition are included in survey II, appendix A, p. 392, and are discussed in more detail in pt. I, Background Studies, study 6 (Stockwell), p. 150.

survey made in 1955, makes possible analysis of changes in bank financing of small business during the period of monetary restraint. This information is presented in a separate report.[3]

To supplement these data, it was decided to draw upon the knowledge and experience of commercial bankers through interviews. This was undertaken with full appreciation of the shortcomings and pitfalls of such an approach. It was recognized, in the first place, that, while some facts and figures could be obtained, they would necessarily be limited to those readily available to the banker during the period of the interview. The facts so obtained and presented in following pages should be interpreted with this in mind. Analysis indicates that they are not always internally consistent, nor do they always agree with known facts from other sources, such as the business-loan survey. Secondly, the interviews were designed to provide a considerable amount of qualitative information. Among other things, they inquired into bankers' policies with respect to loans to small business, their attitudes toward such lending, and their judgments as to reasons for various developments, such as changes in the demand for loans. This type of information can at times be misleading and difficult to interpret. Lending is a complicated process which, often, cannot be reduced to generalizations. Moreover, answers can be influenced by subjective value judgments and by a desire to tell interviewers what the respondents themselves would like to believe is the case. This is not to question at all the motives or integrity of bankers interviewed, but simply to warn that such may be the nature of any opinion survey.

Despite these possible shortcomings, it was decided that interviews with bankers could shed considerable light on the attitude and approach of bankers toward small-business lending, on the nature of specific kinds and forms of financing, and on the reaction of banks toward small-business lending during the period of monetary restraint. Accordingly, a questionnaire was designed to elicit this information, and interviewers from each Federal Reserve bank proceeded to talk with bankers representing over 670 institutions.[4] The interviews varied, but few were consummated in less than 2 hours, and many required considerably more time. Frequently, they involved several officers in a given bank and extended beyond commercial-loan departments into consumer credit and other specialized departments.

The banks to be interviewed were selected by each Reserve bank in a manner designed to produce the most accurate and representative results possible. While the sampling procedure varied in minor detail among Reserve banks, in general it followed the principle of random selection within major strata. Federal Reserve districts were first divided into areas according to size—metropolitan areas with population of more than 500,000, metropolitan areas with population of 50,000 to 500,000, and all other centers. Within these areas, banks (including nonmember banks) were divided into subgroups, according to the size of the bank. And, within these groups, banks to be interviewed were chosen at random. The sample, therefore, was designed to represent the various sections of the country, sizes of com-

[3] See survey II, p. 371.
[4] A copy of the questionnaire is included in appendix A.

munities, and sizes of banks.[5] In most cases, several banks in a community were interviewed in order to give a cross-section view of the range of practices within a given community. Random selection of the particular banks interviewed should also tend to minimize biases. In total, the sample banks, as of June 1957, held slightly over one-half of the business loans outstanding at all commercial banks.

INSTITUTIONAL FRAMEWORK OF LENDING TO SMALL BUSINESS

This section of the report deals with responses of banks to questions concerning their attitudes toward lending to small business, their attitudes toward lending to new business, the forms of credit extended to small business, and an analysis of rejections of loan applications from small business. First, however, it may be helpful to review, briefly, some outstanding characteristics of the banking market and of commercial banks themselves.

CHARACTERISTICS OF THE BANKING MARKET

The type of economy in which each bank operates, of course, is never precisely like that of any other bank, and this fact should be borne in mind in generalizing about characteristics of the banking market. Yet it is clear that characteristics of markets fall into patterns depending, to a considerable extent, on size of community. Large centers contain a few very large businesses which account for a high proportion of total activity, but they also have many small concerns which, in the aggregate, account for a substantial volume of activity. With rare exceptions, small communities, on the other hand, contain small- and medium-size businesses.

Some indication of the distribution of economic activity may be obtained from census data on population and retail trade. These statistics indicate, for example, that over one-third of the population is concentrated in a small number of cities of more than 250,000; still, one-fourth of the population is in towns smaller than 10,000 in size, and these communities make up 93 percent of all populated centers. Similarly, a heavy concentration of total retail sales occurs in large cities, yet a substantial proportion takes place in small centers where a large proportion of all retail establishments are located.

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[5] A more detailed description of the structure of the sample is contained in appendix B.

TABLE 1.—*Distribution of population and retail trade, by size of community*

[Percent]

Number of inhabitants (in thousands)	Population	Number of communities	Retail sales	Number of retail establishments
Under 1	4.1	52.9	19.6	29.0
1 to 2.5	7.0	23.9		
2.5 to 5	6.5	10.0	5.8	6.8
5 to 10	8.2	6.3	7.5	8.0
10 to 25	11.9	4.2	11.6	10.6
25 to 50	8.9	1.4	8.8	7.5
50 to 100	9.0	.7	8.5	7.1
100 to 250	9.5	.4	9.3	7.5
250 to 500	8.3	.1	7.9	5.7
500 to 1,000	9.2	.1	21.0	17.8
1,000 and over	17.4	(1)		
All sizes	100.0	100.0	100.0	100.0

[1] 5 cities.

Sources: U. S. Department of Commerce; Census of Population, 1950, vol. II, pt. 1, p. 25; Retail Trade Census, 1954, United States summary, pp. 1–72.

Furthermore, statistics in table 2 on the average size of establishment indicate that small business pervades all areas, large as well as small.

TABLE 2.—*Average number of employees, by type of establishment and size of area*

Size of area	Retail firms	Wholesale firms	Selected service firms
Metropolitan areas with over 500,000 population	6.9	12.7	5.1
Metropolitan areas with population between 50,000 and 500,000	6.0	12.2	4.3
All other centers	34.	7.5	2.6

Source: U. S. Department of Commerce, Bureau of the Census, Census of Business, 1954.

Characteristics of commercial banks

As further background, brief consideration should be given to commercial bank characteristics which may be pertinent to small-business financing. Data in tables 3 and 4 indicate that a great proportion of bank deposits is concentrated in large banks and large cities. A substantial proportion, nevertheless, is held by small banks in small centers; and in point of numbers these banks are by far the most prevalent. Most banks, in other words, are themselves small businesses.

Aside from the fact that most banks are oriented toward small business by virtue of the economy in which they operate, lending by small banks is, in effect, restricted to small business by law. For national banks and most State banks, loans to any 1 borrower cannot exceed 10 percent of capital and surplus. Small banks can, it is true, lend to large business by participating in loans with other banks, but loans on this basis do not account for a substantial proportion of total loans.

TABLE 3.—*Distribution of number and deposits of insured commercial banks, by size of community, as of Sept. 21, 1955*

[Percent]

Number of inhabitants (in thousands)	Number of banks	Bank deposits
Under 1	29.3	3.1
1.0 to 2.5	22.1	4.3
2.5 to 5.0	13.0	4.0
5 to 10	11.8	5.4
10 to 25	9.4	7.5
25 to 50	4.5	6.1
50 to 100	3.0	6.1
100 to 250	2.7	9.5
250 to 500	1.6	9.5
500 to 1,000	1.4	18.0
1,000 and over	1.2	20.5
All sizes	100.0	100.0

Source: Annual Report of the Federal Deposit Insurance Corporation for the year ended Dec. 31, 1955, pp. 78 and 68.

TABLE 4.—*Distribution of number of banks, deposits, average number of officers and employees, and average capital accounts of insured commercial banks, by size of bank, 1956*

Size of bank, total deposits (millions)	Number of banks (percentage distribution)	Bank deposits (percentage distribution)	Average number of officers and employees	Average capital account (thousands of dollars)
Under $1	12.3	0.6	4	86
$1 to $2	21.1	2.1	6	155
$2 to $5	33.1	7.1	10	293
$5 to $10	16.4	7.7	21	569
$10 to $25	10.4	10.6	46	1,138
$25 to $50	3.3	7.5	99	2,424
$50 to $100	1.6	7.5	204	4,991
$100 to $500	1.5	20.9	565	15,967
$500 and over	.3	36.0	3,343	136,537
All sizes	100.0	100.0	40	1,213

Source: Annual Report of the Federal Deposit Insurance Corporation for the year ended Dec. 31, 1956, p. 125.

Necessity of minimum credit standards

The attitude of bankers toward lending to small business is further influenced by the nature of commercial banking itself. Unlike other businesses, commercial banks have the power to deal in obligations that are widely acceptable as money. The demand nature of banks' liabilities imposes requirements of liquidity that strongly influence lending policies. Since any given bank operates largely with the balances of its depositors, mistakes in credit judgments that result in losses to the bank may create doubts in the minds of depositors and result in a loss of public patronage.

Banks are in business to make a profit by servicing their communities. To do so they must take risks. Like other corporations, however, banks must also temper their desire to expand and to make larger profits by a need to protect their stockholders' investment. Since most banks have a ratio of capital funds to total assets which is relatively low compared to most other lines of business, this consideration may be more important in banks than in some other businesses.

Finally, as a factor tending to set an outer limit to the credit risks which banks can accept, are the various banking laws and regulations that in general set minimum standards and which are designed in large part to protect depositors. As part of the mechanism for checking the compliance of banks with such laws and regulations, regular reviews and appraisals of bank loans and security holdings are made by the bank supervisory authorities.

ATTITUDE OF BANKS TOWARD SMALL-BUSINESS LOANS

The above information suggests that most commercial banks, by virtue of the environment in which they operate and their size, tend to be oriented toward small business. Various forces, however, make risk a very important consideration in lending decisions.

This background is helpful in evaluating bankers' responses to questions involving their efforts to accommodate small-business borrowers. The prevailing attitudes expressed in interviews is a desire to "meet the legitimate needs of all creditworthy borrowers." A few banks, it is true, indicated a passive or negative attitude. Reasons for their attitude usually involved risk and cost considerations. They were unwilling to assume any significant degree of risk and believed that small business by and large are not "creditworthy." Or they felt that costs involved in making small loans are too great and returns not adequate in relation to other types of loans.

With these exceptions, banks generally expressed strong interest in financing small business. The familiar phrase, "meeting legitimate needs of all creditworthy borrowers," turned up time after time, but took on more meaning when combined with further information. Perhaps the strongest reason advanced for this attitude was the importance of good relations between banks and small-business men. Bankers pointed out that their long-view interests lay in gaining and preserving the good will of small business. To some this merely represented desire for continuing good customer relations, but in many cases it reflected a consciousness of the fact that development of the community rested to a considerable extent on the bank's fulfilling its proper function of supplying the necessary credit to foster economic growth. Bankers expressed a very real feeling of obligation to accommodate credit requirements of local business, giving local concerns (the great majority of which are small) a competitive advantage in this respect over outside firms. Banks recognized that growth of the community, in turn, promises larger deposits and loans. These expressions were not limited to small country banks. Many large banks were anxious to extend branches into suburbs and outlying areas in which deposits come largely from small businesses and individuals. Finally, banks reiterated the fact, borne out by statistics derived from the business loan survey, that small business, in the aggregate, is a big customer, and that many small businesses have good credit ratings and are good profitable borrowers.

Internal operations reflected this attitude toward small business. A few banks had special small-business departments, directed advertising specifically toward small business, or offered formalized counseling services. But these were the exceptions. On the other hand,

many banks emphasized the importance of their consumer credit departments as a source of small-business financing. It is likely that this aspect of the question has not received the attention it deserves, for many small businesses apparently obtain funds through personal loans from banks. Through their consumer credit departments, banks also assist small business by purchasing paper from dealers. In the case of equipment paper, both the dealer and the purchaser of the equipment are likely to be small businesses.

Most revealing of the attitude toward small-business lending, however, was the position, frequently expressed, that size, per se, is not a major criterion in making lending decisions. Some bankers indicated that their loan officers might specialize in certain types of loans or certain industries, but would handle small as well as large businesses. Credit standards seem to prevail uniformly regardless of size of the business. In a few isolated instances, bankers reported lowering their standards in order to accommodate small businesses. Generally, however, the meaning of the phrase "meeting legitimate needs of all credit-worthy borrowers" is that bankers are anxious to lend to small business for the reasons cited above, and prefer such loans to many other outlets for funds, but only if small businesses can meet minimum standards of creditworthiness. While the interviews did not develop statistics to prove the point, it seemed clear that in bankers' experience many small businesses have more difficulty in meeting certain tests of creditworthiness than do larger businesses. Thus, the availability of funds for small business turns largely on banks' credit standards and the specific forms and terms of loans made.

ATTITUDE OF BANKS TOWARD LOANS TO NEW BUSINESS

Before turning to the various forms of lending, however, additional light can be shed on bankers' attitudes by describing their approach to loans to new businesses. Very few banks, probably less than 5 percent of all those interviewed, apparently have a policy of not lending to new businesses. Most of them were small banks in small communities. One reason given was that the major need of new businesses is for equity capital, and this is not an appropriate use of bank funds. Another was that businesses must demonstrate satisfactory performance before they can qualify for consideration.

Most banks, however, will lend to new businesses. For reasons much the same as those already given for their interest in lending to small business, many are active in promoting the establishment of new businesses in their communities. But they recognize that such loans are likely to involve more risk than loans to established concerns. Products or services of the new firm may not be proven, the firm itself has not demonstrated an ability to compete, and has no established record of borrowing and repayment habits on which the bank can judge its creditworthiness. Among lines of business, some banks mentioned restaurants, taverns, and bars as presenting a particularly large loss hazard, providing doubtful collateral, and involving high mortality rates. As will be mentioned later in this report, the most frequent reasons which banks gave for rejecting applications from small businesses involved inadequacy of the owner's equity in the business, poor earnings records, and questionable management

ability. All are more likely to prevail in unproven new businesses than in established firms.

Elements of risk, although usually greater than in established concerns, may be less in the case of firms recently under new management or ownership. Such concerns at least have a product, equipment, a labor force, and established trade relations by which the bank can measure credit worthiness. If the new management is well known to the bank, the situation may be no different than in a loan to any other concern. But an unknown ownership or management introduces new potential risks. Also, the financial structure of the firm frequently has changed, sometimes for the worse.

Because of the elements of risk, banks approach loans to new firms and firms under new management with caution, and this attitude reflects itself in the forms and terms of loans. New businesses seldom can obtain unsecured loans. They are likely to borrow on various kinds of collateral—stocks, bonds, mortgages, accounts receivable and endorsements are common. Banks very frequently require more collateral of new businesses than of other borrowers. Insurance on the owners' life is often required. Banks may hold the loans to shorter terms, grant smaller amounts, and occasionally charge higher rates. They are likely to supervise the loans more closely.

These policies apparently are of long standing, for most banks indicated no significant change in recent years. Some did indicate, however, a tendency to favor established concerns over new businesses when funds became tight, and a tendency to cut back on longer-term loans (the kind of credit many new businesses most need) during the period of monetary restraint.

FORMS OF BANK LENDING TO SMALL BUSINESS

Because the specific forms and terms of loans made are among the most tangible evidences of banks' approaches toward small business lending, a considerable portion of the interviews was devoted to this subject. Bankers were asked which of various forms of loans they extended frequently, occasionally, rarely, or never. They were then asked specific questions about the nature and terms of loans extended frequently.

Before analyzing replies to these questions, it should be pointed out that the frequency of various forms of loans made was not subjected to statistical verification, but was based simply on the banker's judgment at time of interview. Since the objective of the questions was merely to ascertain which forms were more prevalent and which less prevalent, loans reported as "frequently" and "occasionally" made have been combined under the term "relatively frequent," and are so shown in tables 5 and 6. Loans reported to be "rarely" or "never" made may be thought of as "relatively infrequent." In table 5, for example, loans secured by collateral unrelated to business were made relatively frequently by 85 percent of all the banks interviewed. In combining the answers of banks, no attempts were made to assign weights according to the size of bank; responses of small banks were given as much weight as those of large banks.

Tables 5 and 6 suggest certain generalizations about the approach of banks to financing small business. Perhaps the most striking impression is one of diversity. Over half the banks extend all but one

of the forms of credit relatively frequently. In this respect lending to small business seems to be quite different from lending to large business. The typical method of bank financing of large business is by lines of credit. It would appear that many of the forms of loans listed in the tables have been developed in large measure to meet the needs of small business.

TABLE 5.—*Forms of small business lending by banks in various sizes of communities*

Types of financing	Percentage of banks reporting "relatively frequent" use			
	All banks	Banks in—		
		Large communities [1]	Medium-sized communities [2]	Small communities [3]
Loans secured by collateral unrelated to business	85	91	87	79
Mortgage loans on business properties	81	84	83	78
Direct loans to finance equipment	80	81	81	79
Unsecured loans other than lines of credit and term loans	77	81	87	68
Consumer paper from retailers other than auto dealers	76	72	75	80
Unsecured loans under lines of credit	76	81	76	73
Loans secured by guaranties, endorsements, leases, etc.	69	76	79	59
Consumer paper from auto dealers	64	60	61	69
Equipment paper purchased from dealers	62	56	62	65
Construction loans	59	67	66	50
Unsecured term loans	54	61	54	50
Loans secured by inventory	52	55	54	50
Accounts receivable financing	51	70	67	29
Equipment paper rediscounted from finance companies	11	15	14	7

[1] Metropolitan areas with population over 500,000.
[2] Metropolitan areas with population between 50,000 and 500,000
[3] All other areas.

TABLE 6.—*Forms of small-business lending by size of community and size of bank*

Types of financing	Percentage of banks reporting "relatively frequent" use								
	Large communities [1]			Medium-sized communities [2]			Small communities [3]		
	Large banks [4]	Medium banks [5]	Small banks [6]	Large banks	Medium banks	Small banks	Large banks	Medium banks	Small banks
Loans secured by collateral unrelated to business	94	95	84	96	88	85	-------	92	78
Mortgage loans on business properties	84	80	87	82	86	79	-------	96	76
Direct loans to finance equipment	92	79	68	90	82	78	-------	85	79
Unsecured loans other than lines of credit and term loans	83	90	72	95	92	80	-------	77	67
Consumer paper from retailers other than auto dealers	80	68	63	91	71	74	-------	92	79
Unsecured loans under lines of credit	88	87	65	76	79	73	-------	84	72
Loans secured by guaranties, endorsements, leases, etc.	92	74	55	86	82	74	-------	89	56
Consumer paper from auto dealers	68	56	52	86	61	54	-------	81	68
Equipment paper purchased from dealers	79	46	32	82	74	45	-------	85	63
Construction loans	77	67	53	91	74	51	-------	70	48
Unsecured term loans	74	44	58	60	61	46	-------	54	50
Loans secured by inventory	70	53	32	82	60	40	-------	62	49
Accounts receivable financing	86	72	44	91	85	42	-------	46	27
Equipment paper rediscounted from finance companies	22	17	3	20	15	10	-------	11	7

[1] Metropolitan areas with population over 500,000.
[2] Metropolitan areas with population between 50,000 and 500,000.
[3] All other areas.
[4] $100,000,000 and over in deposits.
[5] $20,000,000 to $100,000,000 in deposits.
[6] Under $20,000,000 in deposits.

It is indicative of the special problems faced by small business that various types of secured loans are high in the list of loans made. On the other hand, the fact that over three-fourths of the banks make unsecured loans under lines of credit and other short-term arrangements indicates the existence of a great number of small-business customers with strong managements, good financial statements, and well-established banking connections.

The breakdowns in the tables by size of bank and size of community give some indication of another characteristic of lending to small business—considerable variation among banks. These variations actually are greater than the tables indicate. In a given community one bank may specialize in equipment loans, another in accounts receivable loans, a third in automobile paper. This would seem to be a natural tendency and, to the extent that the diverse practices of individual banks in a community tend to complement one another, would work toward a more complete structure of sources of finance for local small businesses.

When individual banks are combined with groups, some of these tendencies are concealed. Yet, some clear patterns remain. For example, the types of credit available to small-business men are more diverse in large communities than in smaller communities. This seems to be true not because of the size of community so much as the size of banks in those communities. The variety of forms of loans declines quite noticeably as one moves from very large to very small banks. This would seem to be largely a matter of demand and cost. Large banks probably have a greater variety of demands for loans and also have the staff and resources to devote to development and perfection of highly specialized techniques of lending. Smaller banks seem more likely to fix on forms of loans that meet most situations. Small loans are usually more costly to make, per dollar of loan, than larger loans anyway; specialized types of loans require a staff, paperwork, and supervision that tend to make costs even higher.

The forms of credit extended by small banks tend to be less formalized and probably more flexible than those of larger banks. With their more intimate knowledge of customers, small banks may be better able to adapt a given type of loan to borrowers' needs. They might, for example, extend the equivalent of an "inventory loan" by making a 90-day loan, say, secured by a life insurance policy.

Whether needs of small business are better met by forms of loans which small banks prefer or by those which large banks prefer cannot be determined from the interviews. Undoubtedly there are many small banks which have been slow to adopt some of the new techniques of lending. To the extent that some small businesses can qualify for financing only through certain types of loans (say, accounts receivable loans), and to the extent that such loans are not offered in some communities, then there may be an unfulfilled need for credit which could be met within the confines of sound credit practice. Some banks reported they did not make certain kinds of loans because there was "no demand." This raises questions as to whether demand may be absent simply because businessmen have been discouraged from asking for such loans in the past. On the other hand, it may well be that smaller banks, with a more flexible approach, can accomplish just as much with a few standardized forms of loans as can larger banks offering the whole gamut of specializing loan types. These questions can better be answered by borrowers.

With ths general picture in mind, let us turn to the specific forms of loans, taking them in order of prevalence and describing each as bankers see them.

Loans secured by collateral unrelated to the business

The prevalence of this type of loan may be attributable to several factors. To a certain extent it may reflect the desire of banks to get as much security as possible under all circumstances. The fact that this type of credit seems to be more prevalent at large than at some small banks may perhaps bear this out; larger banks may not know their small borrowers as well as do smaller banks and might tend to ask for additional collateral. But to some extent it also reflects the nature of small business and its problems in obtaining financing. Some small businesses borrow in this way simply because of its convenience; they can get credit easily and quickly without having to reveal their financial status in great detail. Others may use this

means to get larger amounts, lower rates, and longer terms than can be obtained on an unsecured basis.

Bankers indicate, however, that this form of loan is most frequently used by firms which cannot qualify for loans on any other basis. Their financial condition cannot justify an unsecured loan and they have no acceptable business collateral. Many small firms apparently prefer this type of loan to borrowing with an endorser. Larger firms do not use this form of loan so extensively because they are more likely to qualify for unsecured credit or have other collateral and because they are unlikely to own sufficient personal collateral to pledge against the larger loans needed.

Bankers indicate that many different types of small businesses use this form of loan. Specifically mentioned were small retail and service concerns (bars, grills, and restaurants, especially), new firms and independent proprietors.

Maturities vary widely depending largely on the type of collateral pledged. Some loans are on a demand basis; others run from 3 months to 10 years. In the latter cases, the collateral frequently is residential mortgages. While these were the maturities reported prevailing in late 1957, they were no different, according to bankers, from those in effect in 1954.

Interest rates averaged around 5½ to 6 percent in late 1957 and ranged as low as 4 or 4½ percent and as high as 12 percent (for installment loans). On the average, interest rates were reported to have risen by about 1 percentage point since 1954.

Mortgage loans on business properties

Since the financing problems of small business are often said to lie in the area of long-term rather than short-term funds, it is significant that mortgage loans on business properties are high among the various forms of loans when ranked in order of frequency. They tend to be more important at medium-size and small banks, those institutions which ordinarily are more active in all types of mortgage lending.

Mortgage loans frequently are the only avenue by which firms which are unable to qualify for unsecured term loans can obtain long-term funds. Their real estate is often their best collateral. Bankers indicated that many lines of business borrow on business mortgages and mentioned the following, among others: retailers (gas stations, restaurants, appliance dealers, general merchants, automobile, and equipment dealers, grocers), services (motels and resorts, garages, theaters), and manufacturers (especially those requiring relatively heavy investment in plant).

Bankers apparently are somewhat reluctant to make mortgage loans to certain types of businesses. They mentioned the following: Restaurants, theaters, taverns, amusement concerns, and resorts. Their grounds are that some of these businesses have been demonstrated to be inherently risky, short-lived, and with rapid turnover of ownership. In this respect bankers' attitudes appear not to have changed significantly in recent years. In addition, they have become more cautious toward lines of business which in their local areas have suffered from cyclical or secular adversity.

In late 1957 maturities of mortgage loans averaged around 10 years and ranged from 5 to 15. Replies indicated some tendencies for ma-

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turities to be shorter in smaller centers than in large cities. Maturities had not changed significantly since 1954. Interest rates typically were around 5½ to 6 percent, approximately 1 percentage point higher than in 1954.

Bankers apparently do not vary appraisal standards, loan-to-appraisal ratios, or protective covenants by line of business and have not changed their standards since 1954. They may have less liberal standards for single-purpose than for multipurpose properties, however. Also, in many cases they seem to consider the ability and experience of management more importont than the line of business.

Equipment financing

Lending to small business on equipment is prevalent at many banks. Among banks the most common practice is to lend directly to the purchaser of equipment. To a smaller extent banks finance equipment by purchasing paper from dealers. Relatively seldom do they rediscount paper from finance companies.

Equipment financing assumes an increasingly important role as firms of all kinds attempt to meet competition by acquiring more up-to-date and more efficient equipment. Types of small concerns mentioned by bankers as frequent borrowers include: laundry and dry cleaning, trucking, restaurants, oil drilling, groceries, construction, oil well service companies, mining, printing, small manufacturing, machinery. Types of equipment range from heavy roadbuilding equipment to air conditioning.

Generally bankers are reluctant to extend equipment financing on highly specialized machinery or on that which depreciates rapidly, has a low resale value, or a limited market.

At the time of interviews, banks were lending approximately two-thirds to three-fourths of the value of new equipment, and between one-half and two-thirds of the value of used equipment. Maturities averaged closer to 24 months than 36 for new equipment and were somewhat shorter for used equipment. There was some tendency for loan amounts and maturities to be more liberal in large metropolitan than in rural areas. Interest rates in some cases seemed to cluster around 5 to 6 percent; but, since installment loans were very frequent, effective rates were likely to amount to 12 percent or more. Bankers stated that these terms generally applied to large and small borrowers alike. Loan amounts and maturities had not changed since 1954 but interest rates were 1 to 2 percentage points higher.

Unsecured loans

Unsecured loans are extended to small business in either of three ways. A businessman who needs funds to order more goods, carry more receivables for a time, or some other specific purpose may borrow for a short period such as 30, 60, or 90 days. At the end of the period he may pay off the loan, but frequently will negotiate a renewal.

The other frequent arrangement, particularly in large metropolitan areas, is a line of credit. If the borrower's balance-sheet figures, earnings records, management, plant, and references all pass inspection, the loan committee, or at times the board of directors, will set up a line of credit on which the borrower may draw. Apparently this procedure is much less formal at small than large banks. A question about the proportion of small-business borrowers with unsecured lines

of credit brought forth such varied responses that an average would be meaningless. It was quite clear, however, that the proportion was much lower for small than for large business.

A third type of unsecured credit is the term loan. This form of loan is extended relatively less frequently, largely because bankers are reluctant to make such long-term loans without collateral; some mentioned the risks inherent in one-man businesses over a period of years.

Bankers indicated that a wide variety of small businesses, however, use unsecured term loans and mentioned retail and wholesale concerns, small manufacturers, and building contractors specifically. Generally, borrowers on this basis are well-established firms with good earnings records, good credit ratings, experienced management, and adequate capitalization.

Maturities of term loans averaged about 2½ years late in 1957 and ranged between 1 and 5 years. Maturities were unchanged from 1954. Interest rates generally were about 6 percent, ranged between 4½ and 11 percent, and were generally 1 percentage point higher than in 1954. Although many banks stated that there is no difference, others reported that provisions are likely to be less liberal on term loans to small business than on term loans to larger businesses. The deciding factor apparently was the greater degree of risk in many small-business loans.

Consumer paper

Small business obtains a larger proportion of credit than is generally realized by selling consumer paper to commercial banks. This type of lending is especially prevalent in the smaller banks in smaller centers. They purchase paper more frequently than they lend on the basis of chattel mortgages and are especially active in purchasing paper of retailers other than automobile dealers. A wide variety of practices prevails, some banks purchasing with recourse, others without, some with repurchase agreements and other special provisions.

Loans secured by guaranties, endorsements, leases, etc.

Some small firms which cannot qualify for unsecured loans often can obtain financing if their credit position is supported by someone else. This seems to be more the case in large metropolitan areas than in small communities, perhaps because banks in the latter can know their small borrowers more intimately. There were some indications, however, that banks make this type of loan only if they expect not to have recourse to the guarantor or endorser, and that companies in unusually shaky positions cannot qualify for loans of this type.

Banks frequently make loans on the endorsement of notes, less frequently on guaranties of other concerns. Credit based on leases is likely to be concentrated in particular businesses, such as gas stations and shopping centers. Small retailers, laundries, contractors, machine shops, repair shops, liquor dealers, and trucking firms are among those mentioned as using this general form of credit.

It is difficult to determine whether large businesses receive more liberal treatment in loans of this type since the bulk of the loans go to smaller concerns. Bankers indicated no clear-cut tendency for maturities to be different as between loans to larger and small business, but interest rates probably were somewhat higher for the latter.

Construction loans

This form of lending seems to be less prevalent than some others partly because of lighter demand and partly because of bank preference. It is especially infrequent in smaller banks in smaller areas. Home financing is more likely to be arranged directly with the owner because less building is done on a project or speculative basis. Relatively few banks are very familiar with the techniques of construction lending and regard such loans as requiring more supervision than they are prepared to undertake.

Banks which do make such loans usually expect borrowers to have an established deposit relationship and require takeout commitments for the mortgage. Maturities average around 6 months but vary from 3 months to a year, depending on the building project, being shorter for residences and longer for large commercial undertakings. Interest rates were reported usually to be around 6 percent, about 1 percentage point higher than in 1954.

Inventory loans

Loans secured by inventories are relatively less important than most other types of loans, again largely because this is a specialized form of lending which many banks regard as involving considerable administrative detail and expense and, hence, to be avoided. The ability of a concern to qualify for inventory financing depends largely on its financial status and the market and price stability of its inventory. Lines of business most likely to use this form of financing include: automobile, appliance, furniture, and farm implement dealers, the food and textile industries, liquor dealers, and dealers in construction materials, plumbing supplies, and house trailers. Types of businesses to whom banks are reluctant to extend such loans include: sellers of specialized goods which are not readily marketable, concerns producing perishable products, and dealers in goods with rapid turnover (it complicates recordkeeping).

Maturities of inventory loans vary from demand to a year, but typically are around 6 months. In late 1957 interest rates averaged around 6 percent, up about 1 percentage point from 1954. Most bankers indicated that these terms did not differ substantially from terms on loans to larger businesses.

Accounts receivable financing

This form of lending is one of the less prevalent because some banks apparently regard it as costly and because it is not much demanded. This seems to be especially the case in smaller banks. Some other banks, however, apparently regard this form of lending with increasing favor and state that many small businesses, not eligible for credit otherwise, can obtain financing through loans on accounts receivable. This is borne out by the types of businesses which are most prevalent borrowers—"marginal," "under capitalized," and "low in working capital" are some of the descriptions bankers gave. Other frequent borrowers are firms with highly seasonal sales, slow-paying customers, and high receivables. They are widely distributed by line of business: printing, building contractors, oil-drilling contractors, lumber companies, coal mining, appliance dealers, advertising agencies, oil distributors, plumbing contractors, furniture manufacturers, wire manufacturers, department stores, trucking, and wholesale dairies.

Most accounts-receivable financing by banks is done on a nonnotification basis. Banks have no fixed policies, however, as to the minimum size of a customer's business necessary to qualify for financing, nor the maximum amount of a customer's total receivables that they will finance. On the average, they advance about 75 percent of the face value of the receivables, but the percentage may range from 50 to 90 percent depending on the borrower and the quality of his receivables. Banks will accept quite small accounts; policies vary between minimum amounts as low as $50 and as high as $1,000, but the average probably would fall toward the lower extreme. They rely on credit ratings such as Dun & Bradstreet, but treat each case on its own merits. Interest rates in late 1957 averaged around 6 percent, but in some cases were as high as 9 percent. In addition, some banks impose a service charge of 1 percent of the outstanding balance. This charge had not changed between 1954 and late 1957, but interest rates had risen by 1 to 2 percentage points.

LOAN REJECTIONS INVOLVING SMALL BUSINESS

The great variety of credit arrangements which banks have devised to accommodate small business has already been set forth. The "other side of the coin" involves the loan applications from small business which, for one reason or another, banks find it inadvisable to grant. Thus, one important objective of the survey of bank lending practices was to review the various reasons for loan rejections, with special reference to small business, and to determine their relative importance. Before reporting the survey findings, however, it may prove useful to review certain aspects of the credit standards employed by banks, to outline the procedures followed in reviewing loan applications and rejections, and to indicate the status of bank records on loan rejections.

Bank-to-bank variations in credit standards

Even given the necessity of minimum credit standards in bank lending, as discussed earlier in this report, it is widely recognized that evaluation of credit risks is not an exact science. It may be easy to assess the creditworthiness of a large, well-established firm with a history of successful operations that is proven by audited records. But it takes considerable skill and judgment to evaluate the creditworthiness of a small firm, particularly a new one, whose prospects may depend heavily on the ability and health of the owner and whose past record may be based partly on intangible factors which are difficult to assess.

Recognizing the above distinction, it is understandable that there are many gradations of credit risk which might be assigned by different loan officers to the same small-business loan application. While the decision may be based, in part, on certain formulas involving various financial ratios, there are other aspects of risk which cannot be quantified in lending to small business.

Thus, it is clearly possible that a loan application deemed to be too risky by one bank might be granted, with appropriate safeguards, by another bank. On the other hand, a rejection of the same loan application by two or more banks would constitute stronger evidence that the loan is not "bankable." The partly subjective nature of credit stand-

ards, and hence the variations that may show up from one bank to another, should be kept in mind in connection with the reasons for loan rejections as discussed below.

Intercommunity variations in credit standards

While there may be noticeable differences from one bank to another in the criteria for measuring creditworthiness, it does not necessarily follow that there are equally wide differences in the availability of bank credit to small business from one community to another. As previously noted, in any given trade area, the policies of individual banks on the forms and terms under which credit is granted to small business tend to complement each other through specialization, though there may still be a broad area of direct competition. To some extent, the same conclusion would seem to apply to the policies and experience of individual banks in a given trade area with respect to loan rejections. The differences from bank to bank are substantial enough to support the conclusion that they are greater than intercommunity variations among communities of comparable size.

As a bank's reputation becomes established, the loan applications it receives tend to fit the known policies and criteria of the bank. During the course of the survey, it was noted in some communities that the bank which was most aggressive in making loans to small business also turned down the most applications; its reputation for soliciting small-business loans brought the bank many marginal applications which it could not handle. On the other hand, another bank in the same community might report that it never refused a creditworthy application and had money to lend without finding the demand to match it; such a bank was likely to have only a relatively small part of its total assets in business loans, however.

Thus, the question of whether banks are serving adequately the credit needs of small business hinges, to a large extent, on individual judgments or definitions of creditworthiness.

Internal review of loan rejections

Since the attitudes of banks toward credit extension are partly revealed by the way in which they are organized to handle loan requests, the responses of the banks to a question on the form of review, if any, of rejected business-loan applications deserves consideration.

On one hand, a bank may be organized to review loan applications in a way that reduces credit losses to a minimum absolute level. On the other hand, a bank may undertake a close reexamination of proposed rejections to assure, not that absolute losses are minimized, but that the loss rate is mose advantageous to the bank. The optimum rate will never be less than the minimum rate, but will exceed it whenever the total gain on riskier loans more than compensates for the losses incurred. In addition to the immediate benefits accruing to the borrower from the latter approach, further long-run gains may accrue to the bank from such a policy, such as goodwill and the growth of marginal-risk firms, generally small ones, into better customers.

It is thus important to note that some form of review of proposed rejections of business-loan applications is fairly common among the banks interviewed, especially at the larger institutions. The review may include practically all rejections, but, more often, is limited to rejected applications above some minimum dollar amount.

While only the largest banks tend to have a formal review machinery, most banks require, for all but the smallest loan applications, that more than one officer, or a committee, review the loan application before accepting or rejecting it. This usually excludes informal inquiries regarding loans which are clearly not bankable and which may be refused or discouraged by any one of the bank's loan officers. Arrangements for reviewing rejections at larger banks range all the way from informal discussions between two or more officers to a systematic review of all rejections by the chairman or a loan committee of the board of directors.

Particularly in the case of borderline decisions on loan rejections, business-loan applications at large banks may be reviewed by heads of loan divisions, by individual senior officers, or by an officers' loan committee. While such evidence of concern over loan rejections at large banks might be explained in terms of a procedure to secure standardization of treatment among applicants, it more likely expresses a positive policy of accommodating the loan applicant if at all possible.

A formal review of initial decisions to reject business-loan requests is much less common at small banks, for the reason that the initial decision is often made by the bank president, himself, or by a key senior officer. With fewer applications to act on, policy decisions on loan rejections can be centered in one or a few officers. The lack of the same extent of review as at larger banks does not necessarily express a less aggressive approach by the small banks in meeting loan demands.

Records on business-loan rejections.—With relatively few exceptions, the incomplete nature of bank records on rejected loan applications, plus the fact that such records as are kept are not usually centralized, precluded the possibility of obtaining an actual tabulation of specific reasons for rejecting small-business loan applications or of the proportion of rejections to applications. As one part of the problem, it is recognized that some tentative loan inquiries from small business may be discussed informally, and, in effect, rejected, without ever appearing as formal applications. While many banks keep some sort of records on rejections of formal applications, there is considerable divergence on the scope and content of the records.[6]

The lack of complete, uniform, and easily accessible records on loan rejections seriously limited the possibility of attaining a thorough understanding of the relative importance of various reasons for loan rejections involving small business, the volume of such rejections, and the trend in the rejection rate for the last several years.

In the absence of firm data to consult, the banks were nevertheless asked to give their recollections and impressions regarding loan rejections. Thus, considerable caution is necessary in interpreting the interview results, as presented below, dealing with the reasons for loan rejections involving small business, and especially in dealing with the trend in the number of such rejections and in the rejection rate.

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[6] Such records often consist only of notations in individual credit files, which are usually arranged alphabetically, rather than chronologically. The alphabetical arrangement would make it particularly cumbersome and time consuming to tabulate the reasons for loan rejections for any given past period. This is one of the reasons that such a tabulation did not prove to be feasible during the survey. The records on business-loan rejections range from individual officer's worksheets to quarterly summaries of applications rejected. Other records include credit files, loan-committee minutes, and notations on financial statements.

Relative frequency of various reasons for loan rejections

During the interviews on small-business financing, the banks were asked to estimate the relative frequency with which various reasons occur in rejecting loan applications from small business. The banks were to consider not only formal rejections, but all rejections—including those applications, however informal, that are screened out on first contact. The reasons for loan rejections were grouped under three headings: Those involving the creditworthiness of the borrower, those involving the banks' overall policies, and those involving Federal or State banking laws or regulations. Specific reasons were listed within each category and, in addition, the banks were invited to supply additional reasons within each category.[7]

The response of the banks, as reported in table 7, reflected long-standing and widely held commercial banking doctrine. It became very clear that reasons involving the creditworthiness of the borrower far outweighed reasons involving banks' overall policies or reasons involving banking laws or regulations as factors in rejecting small business loan applications.

[7] For each reason cited ,the banks were asked to indicate the relative frequency with which the reason occurred: frequent, occasional, rare, or never. For purposes of summarizing and condensing the responses, answers of "frequent" and "occasional" were combined in one category of "relatively important." Table 7 indicates the percent of banks reporting each reason to be "relatively important," as here defined, in rejecting small-business loan applications. The balance of the banks, in the case of each reason, reported "rare" or "never," which may be thought of as a combined category of "relatively unimportant."

TABLE 7.—*Relative frequency of various reasons for rejections of small business loan applications, by size of area and size of bank* [1]

[Percentage of banks citing each reason as "relatively important" [2]]

Reasons for loan rejections involving small business	All banks	Size of area (population, in thousands)			Size of bank (deposits, in millions)		
		Under 50	50 to 500	Over 500	Under $20	$20 to $100	Over $100
Reasons involving creditworthiness of borrower:							
1. Not enough owner's equity in business	93	90	96	96	91	97	97
2. Poor earnings record	85	83	83	88	81	89	90
3. Questionable management ability	84	83	84	87	83	85	89
4. Collateral of insufficient quality	73	70	75	76	72	74	75
5. Slow and past due in trade or loan payments	69	66	74	71	68	74	67
6. Inadequacy of borrower accounting system	51	41	59	65	42	66	68
7. New firm with no established earnings record	48	40	49	57	42	55	59
8. Poor moral risk	41	45	36	40	46	36	33
9. Other reasons [3]	6	3	10	7	3	11	14
Reasons involving bank's overall policies:							
1. Requested maturity too long	71	69	71	75	70	69	81
2. Applicant has no established deposit relationship with bank	49	42	59	52	45	57	53
3. Applicant will not establish deposit relationship with bank	36	27	42	51	30	44	49
4. Type of loan not handled by bank	33	32	30	35	38	25	25
5. Line of business not handled by bank	21	21	22	20	25	18	11
6. Loan portfolio for type of loan already full	19	18	24	17	21	15	17
7. Other reasons [4]	4	1	5	7	2	5	10
Reasons involving Federal or State banking laws or regulations:							
1. Loan too large for bank's legal loan limit	23	30	17	17	32	13	4
2. Other reasons [5]	9	8	8	12	8	10	12

[1] Based on views expressed by banks during interviews on small business financing in late 1957.

[2] Each bank was asked to rate the relative frequency with which each reason for rejection occurs, as follows: "Frequent, occasional, rare, or never." For each reason above, the percentage of banks indicating that it is "relatively important" consists of those that checked the reason as "frequent" or "occasional." The balance of the banks indicated that the reason occurs "rarely" or "never." The responses covered rejections of formal applications as well as informal inquires.

[3] Additional reasons cited by the banks, involving the creditworthiness of the borrower, related to the condition of the specific enterprise, the general nature of the business, or the proposed use of the proceeds of the loan, e. g., overexpansion by the firm, speculative venture, too many firms in the field, tax problems, bad health of owner, obsolete product, duplicate borrowing, and the owner's reluctance to reinvest earnings.

[4] Other reasons involving the banks' overall policies which were cited included such things as: borrower located at too great a distance from the bank; too many banking connections; split line of credit.

[5] Other reasons involving Federal or State banking laws or regulations, and the percentage of banks citing each of them as "relatively important" in loan rejections, were as follows:

	Percent
Regulations or limitations on real estate loans	5
Restrictions on loans on personal property	1
Criticism by examiners	1
Other restrictions	2

The traditional reluctance of banks to incur excessive credit risks by supplying an unduly large proportion of the fixed capital of a business and thus, in effect, "going into partnership with them," is highlighted by the fact that "insufficient owner's equity in the business" was cited as the most frequent reason for denying small business loan applications at all banks in all sections of the country. This factor was cited as "relatively important" by 93 percent of the banks, and was the most frequent reason, regardless of whether banks were classified by deposit size or by size of center in which located.

In addition, the appropriate emphasis which banks traditionally place on past performance and tested management ability is highlighted by the fact that "poor earnings record" and "questionable management ability" were the next most frequent reasons for rejecting loan applications. For the sample banks as a whole, these two reasons were cited by 85 and 84 percent of the banks, respectively, as being relatively important. Whether the sample banks were classified by population size of center or by deposit size of bank, these two reasons ranked either second or third in terms of the percent of banks indicating them to be relatively important factors in rejections.

If it had been possible to determine the proportion of small business loan rejections accounted for by each of the reasons listed in table 7, the importance of inadequate owner's equity, poor earnings record, and questionable management ability would likely have shown up even more clearly. The gap between the above-cited reasons for rejections and all other reasons is probably much greater than implied by the relatives shown in table 7, i. e., the percent of banks citing each reason as relatively important.

The three most important reasons for rejections noted above are, of course, closely related, and they are apt to occur in concert. Taken singly or together, they warn of a high degree of credit risk involved. They are considered by the banks to be ample reason for rejections, in that they are indicative of poor prospects for repayment of the loan. The possible interrelationships among the three factors are numerous. For example, poor management ability is often the key factor in a poor earnings record, which in turn may prevent a building up of the owner's equity or even result in its reduction through losses. More successful management would produce a better equity position and better collateral, unless the firm were seeking to grow at a faster rate than internal and other sources of additional equity capital would permit.

Additional reasons for rejections of small business loan applications, also involving the creditworthiness of the borrower, which were indicated to be relatively important by a large majority of the banks were: "collateral of insufficient quality"—cited by 73 percent of the banks; and "slow and past due in payments"—cited by 69 percent of the banks. A close relationship of these two factors with the ones previously indicated is also evident. For example, poor management may produce a serious maldistribution of resources among fixed and working capital, with a possible deterioration in the quality of collateral as well as a failure to maintain sufficient working capital to meet current trade and loan payments.

Only 1 of the 6 most important reasons for rejections did not involve the creditworthiness of the borrower, but rather involved the banks' overall policies—namely, that the "requested maturity was too

long," cited by 71 percent of the banks as being a relatively important factor in loan rejections involving small business.

The maturity factor, along with the ones cited earlier, highlights the fact that the principal barrier to obtaining bank credit is an excessive degree of risk or an extended maturity. The basic nature of commercial banking, as previously noted, requires banks to place emphasis on the relative safety and liquidity of their loans and investments.

As an important factor in rejecting small business loans, "new firm with no established earnings recorded" was cited by slightly less than half of all banks (although by a majority of large banks in metropolitan areas). There is some reason to believe, however, that this may understate the difficulty which new firms have in obtaining bank credit. Such firms might fail to qualify, not only because of no established earnings, but even more because of "inadequate equity" and "questionable management ability." The latter two reasons would be likely to apply with particular force to most new firms just getting started.

Other factors cited as important in loan rejections by about half of all banks (but by a higher percentage of the large banks) included the inadequacy of the borrower's accounting records and the lack of an established deposit relationship with the bank. The latter factor, which seems to have grown in importance in recent years, will be discussed more fully below, in connection with the part of the report dealing with the impact of monetary restraint.

With the exception of "requested maturity too long" and "lack of established deposit relationship," the other reasons for loan rejections involving overall bank policy were listed as "relatively important" by considerably less than half the banks. Although there were some differences by size and location of bank, a large majority indicated that, as reasons for rejecting small business applications, "line of business," "type of loan not handled," and "portfolio for type of loan already full" were relatively unimportant.

Similarly, as reasons for rejecting small-business loans, banking laws or regulations were listed as relatively unimportant by a large majority of banks. Even among the smallest banks, only one-third of them cited the legal loan limit to one borrower as a frequently occuring reasons for rejection. The fact that the legal loan limits are often known among borrowers, however, may mean that the low percentage of banks citing this factor as a reason for rejections understates somewhat the extent to which legal loan limits actually impair the capacity of banks to accommodate small business. Among the "other reasons" involving banking laws and regulations, it may be noted that "criticism by examiners" was listed by only 1 percent of the banks as an important factor in rejecting loan applications from small business.

Variations by size of bank.—In contrasting the frequency with which various reasons for loan rejections were cited as relatively important by the largest banks (over $100 million deposits) in contrast with the smallest banks (under $20 million deposits), the following points are of particular interest:

1. With only the exception of "poor moral risk," all of the eight reasons involving creditworthiness of the borrower were cited as rela-

tively important by a higher percent of the large banks than of the small banks.

2. In reason involving the banks' overall policies, a higher percent of the large banks than of the small banks cited the following as relatively important: "requested maturity too long," "no established deposit relationship," and "applicant will not establish deposit relationshp." On the other hand, a higher percent of the small than of the large banks cited thhe following reasons as relatively important in loan rejections: "line of business no handled by bank," "type of loan not handled by bank," and "loan portfolio for type of loan already full."

Thus, considerations relating to creditworthiness of the borrower apparently play a relatively greater role in loan rejections at large banks than at small banks, while certain considerations relating to bank policy (e. g., type of loan, type of business, etc.) apparently play a relatively greater role at small banks than at large banks. This should not mask the fact, however, that at all sizes of banks, reasons involving the creditworthiness of the borrower were cited by a larger share of the banks as factors in loan rejections than reasons involving the banks' overall policies.

In part, the differences in the relative frequency of reasons for loan rejections at various size banks probably stem from differences in the climate of bank-borrower relationships, as between large and small banks. At the latter, lending tends to be more of a personal matter, thus bringing into sharper focus such considerations as moral character. In addition, smaller banks are not as likely to have as wide a range of specialized lending, thus accounting for the relatively greater occurrence of "type of loan or type of business not handled" as reasons for loan rejections. Finally, since larger banks tend to have more unsecured loans, considerations relating to the creditworthiness of the borrower would be expected to receive relatively more emphasis than at smaller banks.

Loan rejection rate

In order to keep the credit problem of small business in perspective, it would be useful to know what proportion of small business loan applications are granted by banks and what proportion are rejected. The detailed attention given above the reasons for loan rejections should not be interpreted to mean that a dominant share of loan requests from small business is turned down. There is some evidence, while only fragmentary and not necessarily conclusive, that a preponderant share of small business loan applications is, in fact, granted by banks.

The general lack at most banks of centralized and complete records on loan rejections was discussed at an earlier point. This situation precluded the possibility of a systematic measure of the rejection rate at all the banks in the sample interviewed. There were some banks in each section of the country, however, with sufficiently complete records or intimate knowledge of the problem to make possible an estimate of the approximate order of magnitude of the loan rejection rate in the later months of 1957. Based on records of formal applications only, such banks generally indicated that less than 10 percent of the total number of business-loan applications were turned down, mostly involving small businesses. In several areas of the

country, however, it was indicated that the average rate might be as high as 15 percent. In a few isolated instances, individual banks reported a rejection rate as high as 25–30 percent, usually in connection wtih rapidly growing areas. On the other hand, a much larger number of banks reported very low rejection rates—about 2–3 percent.

Since most loan applications received are from small business, it was not surprising that the banks with records to consult indicated that most of the number of loan rejections involved small business. It could not be determined from the survey, however, whether the loan rejection rate was higher for small businesses than for large, although this is probably the case.

The estimated 90 percent or more of the applications accepted at these banks may not necessarily be granted for the full amount or maturity requested, and various other terms and conditions of the loan may be changed somewhat from the borrower's original request. That is, there may be a significant scaling down of the original loan request in view of the obligation that the bank feels for tailoring the loan accommodation to the ability of the borrower to repay. Thus, banks indicate that they scale down or reject loan applications, not only to protect themselves, but to protect borrowers against overexpansion and an overextended debt position. On the basis of the fragmentary evidence available, however, the "hard core" of loan applications from small business that were rejected completely by banks in late 1957 probably amounted to no more in total than one-tenth of the number of applications received.

Efforts to assist rejected loan applicants

A wide variety of attitudes was found among banks with respect to efforts to help rejected small-business applicants obtain funds from some other source. Some banks help actively, by suggesting other financial institutions, by contacting investors, and by pointing out possibilities of obtaining funds through sale of properties or from friends and relatives. At the other extreme, some banks make no suggestions at all, feeling that the rejected applicants are not good credit risks. By and large, it appears that most banks extend help at least occasionally, while many banks do it regularly.

Referrals to other financial institutions.—In some cases the small business firms applying for funds are basically sound, but the requests involve longer maturities than the banks consider appropriate to their own portfolios. Particularly when such applicants have mortgageable assets, banks often refer the firms to life-insurance companies or savings and loan associations.

Likewise, small banks may be faced with loan demands from creditworthy small businesses which are nevertheless too large to handle in terms of the bank's legal loan limit. In such cases, the applicant may be referred to a larger city bank that acts as a correspondent for the small bank, or a participation loan may be arranged, with the small bank and the city correspondent each granting a part of it.

In the case of credit demands from small business which appear to involve a degree of credit risk inappropriate for a bank to handle, some banks refer the applicant to a financial institution equipped to handle the higher risk. Included in this category are commercial finance companies, factors, and the Small Business Administration.

Assistance in raising equity.—As previously pointed out, a lack of sufficient owner's equity is the principal factor in disqualifying some small business for bank credit. With large owner's equity, the firm could qualify, not only for bank credit, but credit from other sources as well. Many banks expressed the view that most of the small businesses whose applications they are forced to reject are basically in need of a "financial partner" to supply permanent capital, rather than relying on short-term loan funds from a financial institution.

For the most part, banks expressed the view that there is a lack of well-developed sources of outside equity capital for small business, and that their efforts to locate such sources are often unsuccessful. This was particularly true for small banks. To a limited extent, some banks in large cities do have contact with local investors who might put up equity funds in promising small concerns. In some cases, the attempts of banks to act as an intermediary between a small business and an investor fail because the owner of the business is unwilling to dilute his equity or share control of the firm.

IMPACT OF MONETARY RESTRAINT ON LOANS TO SMALL BUSINESS

One of the basic purposes of the interviews on bank lending to business was to explore bank practices and policies regarding loans to small business, with a view to determining whether there had been any significant change in such practices and policies during the period of monetary restraint running from the beginning of 1955 to the latter months of 1957. In particular, it was desired to determine whether basic loan policies, as well as the possible impact of monetary restraint on loan policies, tended to change differently, insofar as they affected small and larger business borrowers. These questions will be examined in this section of the report.

The views and impressions reported by the banks were not intended to stand alone, but were designed to complement the results of the business-loan survey.[8] In a sense, the empirical data derived from a comparison of the business-loan surveys of 1955 and 1957 were intended to indicate what happened with regard to the absolute volume and relative share of bank loans to small business, while the interviews were designed, in part, to help explain why it happened.

The evidence that will be examined includes changes in loans, investments, and deposits from 1954 to 1957; the change in loans to various sizes of borrowers, as determined through the business-loan survey; and the information obtained in the bank interviews with respect to trends in the number of business-loan applications, rejections, and the rejection rate, changes in reasons for rejections, and changes in loan policies.

CHANGES IN LOANS, INVESTMENTS, AND DEPOSITS FROM MID-1954 TO MID-1957

In order to interpret the responses of the banks with regard to the trend of loan applications and rejections and the impact of monetary restraint on their business-loan policies, it will be useful to set forth,

[8] See survey II, p. 371.

first, the changes that occurred at banks in business loans, total loans, total investments, and total deposits during the period under consideration, as affected by the pace and development of general business. The purpose of this is to indicate the overall framework of bank credit, as affected by monetary restraint, during the period within which changes in loans to small business are to be examined.

The changes in loans, investments, and deposits of all insured commercial banks, by class of bank, for the 3 years ending in mid-1957 are set forth in table 8.[9] Similar changes for the sample of banks interviewed, grouped by size of area in which the banks are located, are given in table 9. Some of the salient points which are suggested by an examination of tables 8 and 9, in connection with associated economic developments, may be summarized as follows:

TABLE 8.—*Change in loans, investments, and deposits, 1954–57, at all insured commercial banks, by class of bank* [1]

Class of bank	Amount of change (in millions of dollars)			Percentage change		
	June 1954–June 1955	June 1955–June 1956	June 1956–June 1957	June 1954–June 1955	June 1955–June 1956	June 1956–June 1957
Central Reserve city member banks:						
Commercial and industrial loans	+587	+2,986	+1,348	+6.3	+30.3	+10.5
Total loans	+1,655	+3,083	+739	+11.6	+19.4	+3.9
Total investments	−924	−2,864	−786	−6.4	−21.2	−7.4
Total deposits	+579	+183	−1,800	+1.7	+.5	−5.1
Demand	+588	+168	−2,149	+2.0	+.6	−7.0
Time	−10	+16	+349	−.2	+.3	+7.3
Reserve city member banks:						
Commercial and industrial loans	+1,200	+2,769	+941	+12.0	+24.7	+6.7
Total loans	+3,201	+4,468	+1,313	+14.3	+17.4	+4.4
Total investments	+339	−2,993	−247	+1.4	−12.0	−1.1
Total deposits	+3,188	+1,538	−596	+5.5	+2.5	−1.0
Demand	+2,075	+1,019	−1,749	+4.9	+2.3	−3.8
Time	+1,113	+519	+1,153	+7.3	+3.2	+6.9
Country member banks:						
Commercial and industrial loans	+744	+1,077	+486	+14.7	+18.5	+7.1
Total loans	+2,262	+2,917	+1,613	+11.0	+12.8	+6.3
Total investments	+1,070	−971	+747	+4.0	−3.5	+2.8
Total deposits	+2,650	+1,997	+1,601	+4.7	+3.4	+2.6
Demand	+1,891	+1,250	−37	+5.0	+3.2	−.1
Time	+760	+747	+1,638	+4.1	+3.9	+8.2
Nonmember banks:						
Commercial and industrial loans	+221	+384	+151	+13.7	+20.9	+6.8
Total loans	+770	+1,215	+534	+8.0	+11.7	+4.6
Total investments	+666	+3	+767	+5.7	(2)	+6.2
Total deposits	+1,263	+1,235	+976	+5.3	+4.9	+3.7
Demand	+890	+764	+173	+5.9	+4.8	+1.0
Time	+373	+471	+803	+4.3	+5.2	+8.4
All insured commercial banks:						
Commercial and industrial loans	+2,752	+7,216	+2,926	+10.6	+25.1	+8.1
Total loans	+7,888	+11,683	+4,199	+11.8	+15.6	+4.8
Total investments	+1,151	−6,825	+482	+1.5	−8.7	+.7
Total deposits	+7,681	+4,953	+181	+4.5	+2.8	+.1
Demand	+5,445	+3,200	−3,763	+4.4	+2.4	−2.8
Time	+2,236	+1,753	+3,944	+4.7	+3.6	+7.7

[1] Based on June call report data.
[2] Increased less than 0.05 percent.

[9] The changes were measured as of the June call report dates for several reasons. In the first place, data for nonmember banks are available only for midyear and year-end and not for fall call dates. In the second place, changes from mid-1954 to mid-1957 are probably better indicative of the period of monetary restraint than would be changes from the end of 1954 to the end of 1957.

TABLE 9.—*Change in loans, investments, and deposits, 1954–57, at sample of banks interviewed on small-business financing, by size of area* [1]

Size of area	Amount of change (in millions of dollars)			Percentage change		
	June 1954–June 1955	June 1955–June 1956	June 1956–June 1957	June 1954–June 1955	June 1955–June 1956	June 1956–June 1957
Sample banks in centers under 50,000 population:						
Commercial and industrial loans	+33	+38	+25	+13.5	+13.7	+7.9
Total loans	+93	+134	+75	+9.7	+12.6	+6.2
Total investments	+60	(2)	+66	+5.1	(2)	+5.4
Total deposits	+124	+124	+110	+4.9	+4.6	+3.9
Demand	+89	+61	+40	+5.2	+3.4	+2.2
Time	+35	+63	+70	+4.0	+7.2	+7.5
Sample banks in metropolitan areas of 50,000–500,000 population:						
Commercial and industrial loans	+207	+248	+90	+15.8	+16.4	+5.1
Total loans	+498	+577	+219	+15.9	+15.9	+5.2
Total investments	+64	−202	−9	+1.6	−5.2	−.2
Total deposits	+441	+350	−37	+5.1	+3.8	−.4
Demand	+316	+179	−249	+4.8	+2.6	−3.5
Time	+125	+171	+212	+6.3	+8.1	+9.2
Sample banks in metropolitan areas over 500,000 population:						
Commercial and industrial loans	+1,337	+4,198	+1,821	+10.4	+29.7	+9.9
Total loans	+3,518	+5,988	+1,953	+13.7	+20.5	+5.5
Total investments	+1,558	−4,509	−508	+5.9	−16.2	−2.2
Total deposits	+3,564	+1,495	−457	+5.6	+2.2	−.7
Demand	+2,432	+1,061	−1,850	+5.1	+2.1	−3.6
Time	+1,132	+434	+1,393	+7.0	+2.5	+7.9
All areas:						
Commercial and industrial loans	+1,577	+4,484	+1,936	+11.0	+28.1	+9.5
Total loans	+4,109	+6,700	+2,247	+13.8	+19.8	+5.5
Total investments	+1,682	−4,711	−450	+5.4	−14.3	−1.6
Total deposits	+4,130	+1,968	−384	+5.5	+2.5	−.5
Demand	+2,838	+1,301	−2,060	+5.1	+2.2	−3.4
Time	+1,292	+667	+1,676	+6.8	+3.3	+8.0

[1] Based on June call report data.
[2] Increased less than 0.1 million dollars or 0.01 percent.

1. During the 3 years under consideration, the cumulative impact of monetary policy is clearly evident in the way in which the growth of total deposits slowed down. In the final year, there was virtually no net increase at all banks (and a slight decline at the sample banks), even though there was, undoubtedly, a substantial shift from demand to time deposits. The slowing down in the growth of total deposits was a direct outcome of the System's policy of limiting the growth of member-bank reserves, with a view to combating inflationary pressures. This policy set the overall limit within which additional bank credit was available for the banking system as a whole, since an expansion of total loans and investments tends to result in approximately similar increases in deposits. Total loans and investments cannot grow unless added reserves are available to the banking system. In the absence of such reserves, and if loan demand during the period should be heavy, the banking system, generally speaking, can accommodate the demand only by a liquidation of security holdings through sales to nonbank purchasers. This would lead to a shift in the composition of bank assets and in the ownership of deposits, but a rise in neither.

2. During the 3 years under consideration, and particularly in the middle year, there was an unprecedented growth of business loans. Despite overall credit restraint and the slowing down in the growth of deposits, the banking system managed to accommodate a very large volume of demand for credit from the business community. This was done in large part through a liquidation of security holdings.

The enormous demand by business for credit, both from the banking system and in the capital market, stemmed mainly from the major capital goods boom that developed in this period, particularly in outlays on new plant and equipment. An important part of the increased demand for business loans apparently resulted from the unwillingness of corporations to enter the long-term market for capital funds at a time when bond yields were rising to new postwar highs. Consequently, there was a fuller utilization of lines of bank credit by corporate borrowers that previously had used only a part of their lines. Eventually, strong demand pressures developed on banks outside New York and Chicago as national firms spread their increased loan demand among larger banks in other financial centers. In addition, large nonbusiness credit demands emerged, especially in 1955–56, at the same time that business credit demands were showing unprecedented gains. There was a clear tendency during this period for total credit demands of all types to exceed the volume of current savings plus such additional net expansion in bank credit as was possible, given the System's anti-inflation policy of restraining overall growth in the money supply. Despite the huge volume of business loans made during the period, there is some evidence, to be indicated below, that there was still a margin of unsatisfied demand for business loans.

3. Turning from all banks to various classes of banks, as indicated in table 8, significant changes in lending capacity occurred that have an important bearing on the availability of credit to small business. For purposes of analysis, central reserve city banks and reserve city banks may be grouped together in one category that may be roughly equated with larger banks in metropolitan areas. On the other hand, the country member banks and the nonmember banks may be conceived of as one group roughly synonymous with smaller banks in small cities and towns. During the period under consideration, the deposit figures indicated in table 8 show a massive shift of lending power from the "larger" banks to the "smaller" banks. When only one part of the banking system is under consideration, the source of loanable funds is the net inflow of deposits (less the amount required as legal reserve). In the middle year under consideration, deposit expansion in the smaller banks was nearly double that of the larger banks, while during the year ended in mid-1957, the larger banks lost $2.4 billion of deposits while the smaller banks gained $2.6 billion. The net volume and direction of the flow of money payments during this period was increasingly away from larger centers and toward banks in small centers, as brought out in table 9. During the year ended in mid-1957, the sample banks in both large and small metropolitan areas lost deposits, while banks in nonmetropolitan areas gained. The reasons for this shift are undoubtedly very complex, and no complete explanation will be attempted at this point. Among the factors which suggest themselves in accounting for the shift in deposits, however, are such matters as the shifting patterns in the location of industry and in population movements away from larger and toward suburban and smaller centers; the gradual loss of position of banks in the "center city," as suburbanization grows; and the large reduction in corporate liquidity over the past several years, with a consequent drawing down of large corporate balances at the largest banks.

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4. The main part of the demand for business loans was evidently focused on the larger banks; i. e., central reserve and reserve city banks, as indicated in table 8. During the 3-year period, such banks increased their business loans outstanding by nearly $10 billion in contrast to about $3 billion at the smaller banks. The focusing of business loan demand on banks in metropolitan areas, which is also made clear by table 9, may be explained in several ways: the boom in industrial activity, centered in large cities; consequent heavy borrowing by large businesses, which tend to maintain banking connections with the biggest banks of the country having a legal loan limit sufficient to accommodate big borrowers; and the heavy concentration of small business firms, particularly manufacturing, in metropolitan areas as compared with small towns or rural areas. Thus, it may be inferred from the above figures that the unprecedented demand for business loans during the period under consideration impinged mainly on the class of banks—the larger banks—which were in the poorest position to meet the demand in view of their failure to share proportionately in deposit gains during the first part of the period and the net loss of funds suffered in the second part of the 3-year interval.

5. To meet the extraordinary demand for business loans, the larger banks had to liquidate a substantial amount of securities, totaling nearly $8.5 billion in the 3-year period. Moreover, this had to be done in a period of falling bond prices, and with the further penalty of reduced bank liquidity. In addition, such banks cut down the expansion in other loans (real estate loans, consumer loans, securities loans, etc.). At these larger banks, the total of loans other than to business rose by $3 billion in the first of the 3 years under consideration, but by only $1.8 billion in the second year. In the third year, there was a net liquidation of such loans amounting to $0.2 billion. Central reserve city banks in this year (ended in mid-1957) liquidated other loans to the extent of $0.6 billion.

6. In the meantime, at the smaller banks, not only were business loans rising by $3 billion in the 3 years, but other loans expanded by over $6 billion. Even given the extensive growth in total loans at the smaller banks, the growth was less than the increase in their loanable funds; i. e., deposit gains. For the 3-year period under review, deposits of the smaller banks expanded by $9.7 billion, as compared with an increase in total loans of $8.3 billion. Thus, the smaller banks not only added substantially to their loans but expanded their holdings of securities as well (partly through a reduction in excess reserves). Net additions to their investments occurred in the first and third years under consideration, although in the middle year (ended in mid-1956), they were forced to liquidate security holdings. For the 3 years as a whole, the addition to the security holdings of the smaller banks amounted to $2.3 billion.

7. Thus, as a background for considering changes in the volume and relative share of loans to various size borrowers during the period, as well as trends in loan rejection rates and loan policies of various size

banks, it is important to take into account the trends cited above, which point toward the following conclusions:

(*a*) The nature of economic activity during the period, paced by a capital goods boom, was such that credit demands from large borowers, particularly industrial firms, were likely to be especially strong.

(*b*) There was a significant lack of synchronization between the points at which the main demand for business loans apparently focused (i. e., larger banks) both from large and small borrowers, and the points at which the greatest volume of loanable funds was available (the smaller banks).

(*c*) While some mobility of bank credit was provided by a net shift of security holdings from larger to smaller banks, the larger banks may have been increasingly inhibited from meeting loan demand through sales of securities in a falling market, with consequent portfolio losses, reduced secondary reserves, and a rising loan-to-deposit ratio.

(*d*) It would be expected that the larger banks would exhibit the greatest effects of monetary restraint, in view of the problem of credit rationing which they faced; while the smaller banks, having been in a relatively comfortable position with regard to loanable funds, would be expected to show the least impact of monetary restraint on loan policies and practices. This point will be examined in a later section of the report.

Changes in business loans by relative size of borrower and size of bank, 1955–57

As a further means of assessing the responses of the banks with regard to the trend of business loan applications and rejections and the impact of monetary restraint on their loan policies, some of the key results of the business loan survey will be summarized briefly.[10] Tables 10 and 11 show the changes in the volume and relative share of business loans at members banks to small, medium, and large borrowers at various sizes of banks between October 1955 and October 1957. The basis for classifying businesses as small, medium, or large, which was briefly discussed early in this report, is given in appendix A of survey II, page 396.

An indicated in table 10, while all sizes of borrowers participated in the large increase in business loans during the period, loans to large borrowers went up the most—an increase of $4.9 billion. Business loans to medium-size firms rose by $3.9 billion, and loans to small firms by $0.7 billion. In terms of relative gains during the period, loans to large firms increased by 51 percent in amount and 31 percent in number; to medium-size firms by 28 percent in amount and 23 percent in number; and to small firms by 11 percent in amount and 4 percent in number.

[10] An overall analysis of the business loan survey is contained in survey II, p. 371.

TABLE 10.—*Business loans of member banks, October 1955 and October 1957, by size of bank and relative size of borrower* [1]

Relative size of borrower	All banks		Size of bank (total deposits in millions)						Percentage change, 1955–57			
			Under $20		$20 to $100		$100 and over		All banks	Size of bank (deposits in millions)		
	1955	1957	1955	1957	1955	1957	1955	1957		Under $20	$20 to $100	$100 and over
	Amount (millions of dollars)								Amount			
Small	6,327	7,001	1,254	1,328	1,371	1,546	3,703	4,127	+10.6	+5.9	+12.8	+11.4
Medium	13,835	17,706	1,281	1,594	2,106	2,665	10,447	13,447	+28.0	+24.4	+26.5	+28.7
Large	9,760	14,704	88	104	495	649	9,176	13,951	+50.7	+17.7	+31.1	+52.0
All sizes [2]	30,805	40,618	2,708	3,101	4,087	5,015	24,009	32,501	+31.9	+14.5	+22.7	+35.4
	Number (in thousands)								Number			
Small	685.5	714.4	302.5	285.4	150.8	162.3	232.2	266.7	+4.2	−5.7	+7.6	+14.9
Medium	391.3	480.8	140.1	159.1	99.4	132.2	151.7	189.5	+22.9	+13.5	+32.9	+24.9
Large	26.4	34.7	2.6	3.1	5.5	7.4	18.3	24.3	+31.4	+18.3	+33.2	+32.8
All sizes [2]	1,185.2	1,280.6	465.3	458.8	269.5	315.3	450.4	506.5	+8.0	−1.4	+17.0	+12.5

[1] The total asset size used to classify various types of business as relatively small, medium, or large is given in survey II, appendix A.
[2] Includes a small amount of loans for which size of borrower was not ascertained.

NOTE.—Details may not add to totals because of rounding.

TABLE 11.—*Percentage distribution of business loans of member banks, October 1955 and October 1957, by size of bank and relative size of borrower* [1]

Relative size of borrower	All banks		Size of bank (total deposits in millions)					
			Under $20		$20 to $100		$100 and over	
	1955	1957	1955	1957	1955	1957	1955	1957
	Amount							
Small	20.5	17.2	46.3	42.8	33.5	30.8	15.4	12.7
Medium	44.9	43.6	47.3	51.4	51.5	53.1	43.5	41.4
Large	31.7	36.2	3.3	3.4	12.1	12.9	38.2	42.9
All sizes [2]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Number							
Small	57.8	55.8	65.0	62.2	56.0	51.5	51.6	52.7
Medium	33.0	37.5	30.1	34.7	36.9	41.9	33.7	37.4
Large	2.2	2.7	.6	.7	2.0	2.3	4.1	4.8
All sizes [2]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

[1] The total asset size used to classify various types of business as relatively small, medium, or large is given in survey II, appendix A.
[2] Includes a small amount of loans for which size of borrower was not ascertained.

NOTE.—Details may not add to totals because of rounding.

For purposes of the present report, it is significant to note the differences by size of bank, as indicated in table 10. Generally, the largest banks showed the biggest relative gains in business loans to

all sizes of borrowers. In terms of the amount of loans to small business, banks under $20 million deposits showed the smallest relative gain during the period—an increase of 6 percent. On the other hand, the 2 larger sizes of banks showed increases of about 12 percent. Thus, the increases in loans to small business were relatively the greatest at the largest banks, despite the severe squeeze on their loanable fund position, as previously discussed. Conversely, the smallest relative gains in loans to small business occurred at the smallest class of banks, which, as noted earlier, were in a much more comfortable position for loanable funds.

The above developments seem to confirm the tentative conclusion suggested earlier: that the main weight of business loan demands tended to focus on the larger banks. Even more important, the possibility is suggested that loan demand from small business at the banks under $20 million of deposits, generally located in nonmetropolitan areas, was not very vigorous. The size class of banks involved was in a position to meet a much larger loan demand, from a standpoint of loanable funds. Whether such banks simply did not have large demands from small business, or whether they were following very restrictive policies in lending to small firms, is not indicated one way or the other by the mere statistics. But the question may be clarified by the small banks' responses to questions on their loan policies during the period of monetary restraint, as discussed below.

Various matters relating to changes in the relative share of business loans outstanding to various sizes of borrowers, and held by various sizes of banks, are indicated in table 11. For all sizes of banks, the amount of loans to small business as a share of total business loans was somewhat smaller in 1957 than in 1955, with the greatest loss of relative position occurring at the smallest banks. The number of loans to small business also showed a relative loss of position at the two smaller sizes of banks, but at the largest banks showed a small increase in relative share.

TREND IN NUMBER OF BUSINESS LOAN APPLICATIONS AND REJECTIONS

The data in tables 10 and 11 show only the amount of business loan demand which was actually met. There is the further question of how much, if any, of an additional unsatisfied demand existed, both from small firms and medium- and large-size firms.

Some qualitative evidence on this point was developed in the interviews with banks. Given the lack of complete and readily available records to consult, as previously discussed, the loan officers interviewed were asked to give their best recollections of the trend—increase, decrease, or no change—in the number of business loan applications, rejections, and the rejection rate between 1954 and 1957, regarding both small business and larger firms. Although the responses came from knowledgeable sources, they are in the nature of impressions rather than confirmed data, and must therefore be used with considerable caution. Moreover, the responses indicate only the direction and not the degree of change. The results are summarized in table 12 for all banks interviewed, grouped by size of bank and by size of center.

As indicated in table 12, a majority of banks reported an increase in the number of loan applications, both from small firms and from

larger firms (i. e., medium- and large-size businesses). The important point, however, is that a much higher percentage of the big banks reported such an increase than did the small banks. In the case of banks with deposits over $100 million, over 80 percent reported an increase in the number of applications from both small and large business. In contrast, only a little more than half of the banks under $20 million reported an increase in small-business loan applications, and only one-third of them reported an increase in applications from larger businesses. These differences tend to confirm the tentative conclusion, reached above, that the main weight of business loan demands, from all sizes of business, probably focused on large banks in metropolitan areas. Recognizing that these same banks first failed to share proportionately in deposit gains and later lost loanable funds (i. e., deposits) to the smaller banks, it would be expected that the process of credit rationing would be much more severe at these banks than at small banks.

TABLE 12.—*Trend in number of business loan applications and rejections and in the rejection rate between 1954 and 1957, for small firms and for larger firms, by size of bank and size of area* [1]

Trend in—	Involving small businesses [2]			Involving medium- and large-size businesses [3]		
	Percentage of banks reporting—					
	No change	Increase	Decrease	No change	Increase	Decrease
Number of loan applications at—						
Banks with deposits (in millions) of—						
Under $20	38	55	7	64	33	1
$20 to $100	20	74	6	28	68	1
$100 and over	12	82	6	12	83	1
All banks	30	63	7	44	52	1
Banks in metropolitan areas or centers with a population (in thousands) of—						
Under 50	41	52	7	67	30	1
50 to 500	25	69	6	32	65	1
500 and over	18	75	7	24	71	1
Number of loan rejections at—						
Banks with deposits (in millions) of—						
Under $20	49	46	5	76	22	1
$20 to $100	36	58	6	52	44	1
$100 and over	36	58	6	36	63	1
All banks	44	50	6	61	37	1
Banks in metropolitan areas or centers with a population (in thousands) of—						
Under 50	56	39	5	80	18	1
50 to 500	31	62	7	52	46	1
500 and over	36	59	5	46	52	1
Loan rejection rate at—						
Banks with deposits (in milions) of—						
Under $20	68	17	15	83	7	10
$20 to $100	53	19	28	56	12	32
$100 and over	53	15	32	51	19	30
All banks	62	17	21	69	11	20
Banks in metropolitan areas or centers with a population (in thousands) of—						
Under 50	71	14	15	83	5	12
50 to 500	50	24	26	58	16	26
500 and over	59	17	24	61	14	25

[1] Based on views expressed by banks during interviews on small business financing in late 1957. Since a large majority of banks had no easily available records to consult on the subject, the trends indicated are based on the recollections of the officers interviewed and no doubt involve a much lower order of reliability than if complete data had been available. The table is thus subject to this important limitation.

[2] Based on replies from 632 banks. 40 banks did not attempt to make any estimates of the trends under consideration.

[3] Based on replies from 496 banks. 136 banks that replied to the trends concerning small business indicated that their number of loans to medium- or large-size firms was so small as to make the question not applicable.

In addition to stiffer credit standards and a scaling-down of loan requests, an additional method of rationing would involve an increase in the number of outright rejections of loan applications. Some evidence on this point is contained in table 12.

While half of all banks indicated that the number of rejections involving small business had risen between 1954 and 1957, a considerably higher percentage of banks in large metropolitan centers (59 percent) indicated a rise in the number of rejections as compared with banks in centers under 50,000 population (39 percent). Similarly, a higher percentage of the larger banks indicated an increase in the number of rejections of larger business loan applications than was the case with the small banks. In fact, the majority of the small banks indicated that the number of rejections had remained unchanged or decreased during the 3-year period, while the majority of the large banks indicated that rejections had risen. This is further evidence that the main impact of monetary restraint, operating in conjunction with factors producing a redistribution of the loanable funds in the banking system, had its main impact at large banks in large metropolitan areas.

This same evidence adds strength to the possibility suggested earlier that the smaller percentage gain in loans to small business at banks under $20 million of deposits, as compared with larger banks, was due to a weaker demand rather than more restrictive loan policies than at the larger banks. The fact that business loans to medium- and large-size firms showed larger relative gains than loans to small business in and of itself does not prove that small business bore the main brunt of monetary restraint.

The percentage of banks indicating a rise in the absolute number of rejections is one of the measures of the unsatisfied margin of business loan demands during the period. It will be noted that an increase in the number of rejections occurred, both for small firms and for larger firms, with a higher percentage of banks reporting a rise in rejections for small business than for larger firms, except at the largest banks. At the latter institutions, a greater proportion of the banks indicated that rejections had risen for larger borrowers than for small borrowers. This would confirm that credit rationing affected not only small firms but larger firms as well.

Another measure of the process by which credit rationing adjusted the business demand for bank credit to the available supply is the trend in the proportion of loan applications rejected. This is also indicated in table 12.

Generally speaking, a considerably higher percentage of banks reported an increase in applications for business loans than reported an increase in the number of rejections of business loans, for both small and larger borrowers. This would suggest that for most banks the rejection rate did not increase. This is indicated by table 12, showing that, for both large and small business, the majority of banks reported that the rejection rate had remained unchanged. Another, but smaller, portion of the banks indicated a decrease in the rejection rate. In the case of small business, one-third of the largest banks and one-seventh of the smallest banks reported a decline in the proportion of loan applications rejected. In the case of larger firms, three-tenths of the largest banks and one-tenth of the smallest banks indicated a decline in the rejection rate. However, 17 percent of the

banks, in the case of small business, and 11 percent of the banks, in the case of medium- and large-size business, reported that the rejection rate had risen during the interval.

Even assuming that the above figures were completely accurate, however, the absence of a general rise in the rejection rate does not imply a lack of growth in the volume of unsatisfied credit demands. The rise in the absolute number of rejections, as reported above, would seem to be a more significant measure. To that extent, there is evidence that the hard necessities of rationing the available supply of bank credit among the greatly enlarged business demands for it did result in some increase in the volume of unsatisfied credit demands during the period, both for small firms and for larger borrowers.

Shift in reasons for loan rejections

The relative frequency of various reasons for loan rejections, as reported by the banks, was discussed at an earlier point. It was indicated that by far the most important reasons had to do with the creditworthiness of the borrower rather than with the banks' overall policies or with banking laws or regulations.

With only one important exception, the banks indicated that there had been no change in the primary reasons for loan rejections during the period of credit restraint from the end of 1954 through late 1957. The major exception was that a number of banks reported that the lack of an established deposit relationship, or the lack of willingness to establish a future deposit relationship, was a much more important factor in loan rejections during the period of credit restraint than it had been during the preceding period of credit ease. With the general slowing down in the growth of total deposits, brought about through credit restraint, and given the very large demands for bank credit during the period of business boom, most banks felt pressed for loanable funds, since the net inflow of deposits determines any given bank's lending ability. It was natural under these circumstances that the banks, particularly the larger ones which were experiencing a relative or absolute loss of deposits, should take measures to retain deposit funds. As a prerequisite for obtaining bank credit, the setting forth of a prior deposit relationship, as well as a minimum compensating balance during the period of the loan, was one way of accomplishing this objective. The extent, therefore, to which established deposit relationships and compensating balances became an increasingly important type of qualification in obtaining bank credit was one of the important byproducts of credit restraint.

Lines of credit

With regard to the strong increase in the demand for business loans during the period under consideration, which seems to have occurred mainly at the large banks and by larger borrowers, the banks were asked to indicate whether the loans were granted under lines of credit previously in existence or under new lines. For the most part, particularly at the big banks, it was indicated that the bulk of the loans were granted under previously existing lines of credit, which were used much more actively, although there was some increase in the size of existing lines during the period, as well as an increase in new lines. This may be an important part of the explanation of why the preponderant share of the business loan growth, especially at the large

banks, went to large business. It is generally known that large business firms borrow principally from big banks, mostly on an unsecured basis under lines of credit. As shown in table 10, banks with deposits over $100 million account for 95 percent of loans to large firms. Given the keen competition between banks for deposits, particularly during a period of monetary restraint, one of the strong "selling points" that a bank has to offer a prime customer in attracting its deposit balances is a line of credit. Thus, during the period of the capital goods boom, with a tremendous demand for external financing by large firms, which was met only in part by an unprecedented volume of security issues, apparently a substantial number of big concerns exercised their "options" with banks—that is, used lines of credit for which previous commitments had been arranged.

CHANGES IN BUSINESS LOAN POLICIES

It seems clear that, while monetary policy from 1955 to 1957 had a restraining effect on the extension of bank credit in general, as is indicated by the slowing down of deposit growth, banks managed to grant a very large volume of business loans, mainly through a liquidation of security holdings and an increase in borrowings from Federal Reserve banks.

Despite the large increase in business loans, it appears from the trends reported in the number of loan rejections that there was still a margin of unsatisfied demand, even though the proportion of rejections was reported not to have risen at most banks. In short, credit rationing had to be practiced, mainly at the larger banks, in order to scale down the volume of requests to the supply of funds which could be made available.

A central problem at issue is whether the process of credit rationing tended to impinge more on small borrowers than on larger ones. That is, whether business loan policies tended to change differently insofar as they affected small and larger business borrowers, or whether the effect of any given policy change tended to bear more heavily on any given size class of borrower.

It is important to bear in mind that monetary restraint affects the loan policies of individual banks only indirectly, through actions by the central bank which influence the volume, availability, and rate of growth of member bank reserves. Federal Reserve credit policy actions, however, tend to affect only the total volume of member bank reserves, and not their distribution among banks or the uses made of available lending potential at banks. The distribution of reserves among member banks is determined by market forces; that is the success of any given bank in attracting the balances of depositors, the net direction and flow of money payments, and so forth.

For any given bank, as noted earlier, the volume of added loanable funds depends on the net inflow of deposits. Thus, any given bank is largely unable to identify the specific impact of monetary policy among all the other factors which affect its gross gains and losses of deposits.

In a period of monetary restraint some banks may be affected much more than others, as the figures cited have made clear, but such an outcome is the result of market forces that determine the distribution of a given amount of reserves and deposits among member banks.

Thus, a change in loan policies at any given bank may not necessarily stem solely or directly from the impact of monetary restraint. During such a period, one bank may be gaining deposits and another bank losing funds. For these reasons, the impact of credit restraint on loan policies of individual banks can only be inferred, and not measured directly.

As part of the interviews, the banks were asked a series of questions as to whether any changes had taken place during the period of monetary restraint in various policies affecting business loans, with special reference to small business. Questions on most of the 11 facets of loan policies included a specific reference to small versus larger borrowers, while in other cases the distinctions were usually made apparent in the answers given. The purpose of the questions was to obtain greater knowledge of how the process of credit rationing, brought about by the general climate of credit restraint, tended to work, and whether it tended to have a differential effect on small business.

As might have been expected from the changes previously noted in the loanable funds position of various size classes of banks, in connection with the relative strength of loan demands at the same banks, a change toward more restrictive loan policies was most clearly apparent at larger banks in metropolitan areas and least apparent at banks in rural areas. Moreover, the responses of the banks indicated that the tightening of loan policies was not based on size of borrower, but had been undertaken "across the board" for large and small borrowers alike. Even though size of borrower was not the criterion by which credit rationing was exercised, there still remains the question of whether the specific policies that were made more restrictive tended to affect small borrowers more than large. A tentative answer to that question will be attempted in the course of reporting the specific policy changes.

Various policies affecting business loans which were reported to have changed substantially, mainly at the larger banks, were in regard to (1) compensating deposit requirements, (2) standards of creditworthiness, (3) new versus established customers, and (4) loans to nonlocal borrowers.

On the other hand, policies on term loans showed only a moderate change, which was much more apparent in some sections of the country than others, and mainly at large banks for large borrowers.

Finally, loan policies which showed little or no change, at all sizes of banks, were in regard to the following: (1) Short-term loans, (2) secured versus unsecured loans, (3) lines of credit, (4) overall ratio of loans to deposits, (5) loan renewals, and (6) types of industries accommodated.[11]

[11] It should be noted that the meaning of "policy changes" discussed in the interviews was not always clear, despite the attempts by banks to give careful and thoughtful replies. There were some indications that, while policies might have remained unchanged, attitudes and practices did change. Answers of "no change" in policy were very frequent, yet it is not certain that this expresses adequately the change in conditions that occurred. For example, without any change in policies of serving established customers or best qualified customers first in a period when credit demands are strong, there could be a considerable shift adverse to new borrowers or a rise in general credit standards applied. Some banks might consider these changes as encompassed within existing policies. In addition, some banks may have reported "no change" in certain policies simply because the alteration was so gradual or so modest as to be considered unchanged for all practical purposes. Even small shifts that individual banks might consider "no change," however, could add to a considerable magnitude for all banks taken as a whole.

Loan policies showing substantial change

Compensating deposit requirements.—As a reason for loan rejections, the growing importance during the period of monetary restraint of a lack of an established deposit relationship was discussed earlier. As a loan policy, a clear majority of banks in large metropolitan areas (over 500,000 population) placed more stress on compensating balances during the period, indicating that it became a virtual requirement in order to get loan accommodation. This policy was reported to have applied especially to large borrowers. In many cases, the balances required were larger than in 1954, and if reasonable balances were not maintained, the interest rate was often increased. To a lesser extent, this same policy change was reported by banks in small metropolitan areas (under 500,000 population), while it was stressed by only a small minority of banks in nonmetropolitan areas.

Standards of creditworthiness.—At banks in large metropolitan areas, a substantial number (but less than half) reported a definite tendency to become more selective in granting loans during the period of monetary restraint. It was indicated that the analysis of underlying credit factors became more thorough, and that adherence to repayment schedules became firmer. In addition, a more careful scrutiny was made of the use of credit in the business, with a reported tendency to withdraw credit if the firm was making little headway. A number of banks reported deliberate efforts to upgrade the quality of the loan portfolio during this period of intense credit demands when they necessarily had to ration the supply of loanable funds. It was often indicated that borrowers were required to have more equity and to supply the banks with more collateral.

Banks in smaller metropolitan areas also indicated an increase in credit standards during the period, although to a lesser extent than at banks in larger centers. It was reported that closer scrutiny of financial statements and earnings prospects was made, and that the progress of the business was followed more closely. Relatively few banks in nonmetropolitan areas indicated an application of stiffer credit standards, but there was some greater selectivity and closer checking of applications, especially regarding the borrower's capital position. In some cases, the higher standards were indicated to have been applied because the outlook for the particular line of business was poor.

The raising of credit standards was reported by the banks to have applied to all sizes of borrowers. Since small businesses as a group are not as creditworthy as large businesses, and since their creditworthiness tends to deteriorate relative to that of larger business in prosperous times, this policy change undoubtedly affected small businesses more adversely than larger businesses. It was a matter, however, of lending to the best qualified borrowers—one aspect of the market process of allocating resources in a private enterprise economy.

New versus established customers.—A sizable number of banks in large metropolitan areas indicated that, during the period of monetary restraint, established customers were given increasing preference over loan applicants coming to the bank for the first time. Since loan funds were limited, priority was given to regular borrowers, as opposed to new customers, often newly established small firms, as well as to those who were "shopping around" for credit, or those national

concerns approaching the bank for the first time. To a lesser but still noticeable extent, the same policy change was reported by banks in small metropolitan areas. A number of these banks indicated less willingness to take on a new customer, especially if large immediate borrowing was involved. Since banks in nonmetropolitan areas were not faced with the same intensity of demand for business loans, relatively few of them indicated a policy of giving greater preference to established customers during the period.

Loans to nonlocal borrowers.—The question on this loan policy referred both to direct loans to nonlocal customers, as well as to participation loans with other banks to nonlocal borrowers. In large metropolitan areas, except at very large banks whose loan operations tend to be nationwide, there was a frequent expression of reduced willingness to grant loans to nonlocal borrowers, mostly sales finance companies and commodity dealers, during the period of monetary restraint. Because of the relative shortage of funds, it frequently became the policy to serve local credit needs first. This policy change was most often reported in the case of direct loans to out-of-town borrowers. Banks doing a correspondent business reported in some cases that they were under pressure to take participation loans with their country correspondents, but that these loans had been given more careful supervision. It was also indicated that, since nonlocal borrowers are most often apt to be medium- or large-size firms; the policy changes referred to tended to favor small local firms. To a lesser extent, banks in small metropolitan areas also reported a cutback in loans to nonlocal borrowers, in an effort to serve local credit needs. Since banks in nonmetropolitan areas do little lending to nonlocal firms, very few such banks reported any change in policy.

Loan policies showing moderate change

During the period of monetary restraint, reported changes in policy on term loans varied widely from one section of the country to another, making it particularly hard to generalize. Banks in some regions of the country indicated a substantial tightening, while banks in a larger number of regions reported little change. Such changes as were reported applied almost entirely at banks in metropolitan areas (both large and small), and mainly for larger borrowers only, with virtually no changes reported by banks in nonmetropolitan areas. Moreover, the policy changes were apparently made rather late in the period under consideration.

At a number of the larger banks in five Federal Reserve districts, it was reported that a more restrictive policy had been adopted in granting term loans, especially to large firms. Some banks indicated that this had been one of the more important changes in their loan policies—to grant term loans less liberally, and with shorter maturities. In a few cases, the reported changes were based on uncertainties in the outlook for particular industries. The greater number of changes, however, were indicated to stem from the stringency in the supply of loanable funds and a consequent preference for avoiding loans which would lengthen the average maturity of the loan portfolio and aggravate the problem of declining liquidity.

Loan policies showing little change

Short-term loans to large versus small business.—At all sizes of banks, the almost unanimous reply was that there had been no policy

changes with respect to short-term loans to either small or larger borrowers, or that policy had shifted in favor of one size or the other. A few large banks, however, commented that, to the extent credit rationing was necessary, small loans were more likely to slip through, since there was a tendency to make a closer scrutiny of loans above a certain dollar amount.

Lines of credit (including firm commitments) to individual firms.—Even at banks in large metropolitan areas, there were only scattered instances in which a policy change on this matter was reported, and the changes were not all in the same direction. Some large banks indicated that as they had become more fully loaned up, they had become more reluctant to establish new lines or increase the size of existing ones. Other banks reported that they had increased their lines of credit in the past 3 years, including those to small borrowers. In addition, a few banks reported that certain lines of credit had been closed or reduced because of deterioration in the outlook for the type of business involved; e. g., auto and appliance dealers and construction firms. Banks in small metropolitan areas reported even fewer changes than above, mostly a matter of reducing lines of credit to sales finance companies. At banks in nonmetropolitan areas, indications of policy changes on lines of credit were virtually nonexistent. Despite the general absence of policy changes at all sizes of banks, it was noted that existing lines of credit were used much more actively.

Loan-to-deposit ratios.—A question was asked on this ratio or other means of determining when the bank is fully loaned up. In setting a limit to the ratio, a great flexibility apparently exists in bank attitudes. To the extent that any changes in policy were noted, mostly at the larger banks, they appeared to be in the direction of increasing the permissible ratio of loans to deposits, in order to accommodate the rising loan demand. For some banks, this process had reached a point by 1957 at which they were feeling some discomfort over the level to which the ratio had risen. At a few banks where the policy limit was reached, it was reported that they were more critical of loan applications and tended to cut back on term loans and loans to new borrowers. Some banks, while expressing no policy change, indicated that they did not wish to exceed the ratio of loans to deposits then prevailing. The smaller banks generally had had no problem on loan-to-deposit ratios, reporting that their deposit increase had been substantial and that they never had been loaned up during the period of monetary restraint. Small banks usually have ratios of loans to deposits that are low, compared to the larger banks.

Loan renewals.—At all sizes of banks, a large majority indicated that there had been no policy change on loan renewals, either for small or larger borrowers, during the period of monetary restraint. At some of the larger banks, however, where the problem of credit rationing had been especially severe, there were some indications that renewal policy had stiffened. In such cases, it was reported that requests were reviewed more carefully, some reduction asked in the principal amount of the loan at time of renewal, more collateral required for renewals, or a higher interest rate applied. There was no indication of whether these changes had applied more to one size of borrower than another.

Secured versus unsecured loans.—Only a small minority of banks, mainly the larger ones, reported any change in policy in the direction

of more secured loans during the period of monetary restraint. Only in relatively few cases was it reported that collateral was requested from borrowers that formerly had received unsecured loans. Apart from the proportion of secured loans, however, there were more frequent indications that more and better collateral was requested on secured loans than had been the case in 1954.

Types of industries accommodated.—There was almost complete absence of any indication of policy changes on this matter at all sizes of banks. Moreover, the few changes reported were almost all a result of deterioration in the outlook for specific industries, rather than resulting from a relative lack of loanable funds by the bank. Examples cited included loans to loggers, lumber-mill operators, real-estate subdividers, and auto and appliance dealers. The only exceptions were in the case of sales-finance companies and commodity dealers, where some banks had reduced their loans in order to accommodate other lines of business. Thus, the shifts that took place in business loans to various types of business during the period of monetary restraint were reported to have stemmed almost entirely from relative changes in loan demand.

In summary, the main changes in loan policies through which credit rationing adjusted the demand for business loans to the available supply seemed to have mixed tendencies with regard to the impact on small versus larger borrowers, although probably with somewhat greater restrictive effect on small borrowers. The widespread increase in standards of creditworthiness probably tended to favor large firms. In general, such firms tend to have better credit ratings, and meet other qualifications better, than many small firms. The preference given to established over new customers of banks probably had mixed effects on small versus large borrowers. A growing selectivity regarding new customers would tend to hit hard at newly established small firms. On the other hand, such a policy would also tend to work against national or regional firms attempting to borrow from additional banks for the first time, while it would tend to favor established small firms. The policy of favoring local borrowers over nonlocal ones would clearly be in favor of smaller concerns, and such a policy was widely adopted by banks during the period of monetary restraint. Finally, the widespread extent to which established deposit relationships and compensating balances were stressed as a prerequisite for obtaining bank credit affected all sizes of borrowers but seemed to apply with particular force to large firms.

SUMMARY AND CONCLUSIONS

(1) Because of their size and the environments in which they operate, most commercial banks are strongly oriented toward small business.

(2) Yet the nature of commercial banking requires that certain minimum credit standards be observed in extending credit, including loans to small business.

(3) Because of the above, most bankers indicated that they are anxious to lend to small businesses, providing the business concerns can meet banks' minimum credit standards.

(4) Most banks indicated that they will lend to new businesses, but that greater risks are involved and more caution necessary.

(5) Inasmuch as small businesses are likely to have more difficulty than larger concerns in meeting banks' minimum credit standards, the adequacy of bank credit for small business turns on the specific forms and terms of loans made.

(6) Commercial banks make available a wide variety of forms of loans, many of them developed to a considerable extent specifically to meet the needs of small business.

(7) Various types of secured loans rank high among the forms of bank credit extended to small businesses. Unsecured loans are also made frequently, indicating that there are many small business borrowers with good financial statements and capable management.

(8) Large banks offer a greater variety of loan forms than do small banks. Largely because of cost considerations, the latter are more likely to standardize lending procedures rather than to offer a wide variety of highly specialized loan forms. There is some tendency for forms of lending by the various banks in a given community to complement one another.

(9) A description of the various types of loans made indicates that bankers tend to subject almost all borrowers to the same general tests of creditworthiness, but they have found from experience that certain lines of business and types of collateral offer possibilities of greater risks than others. By and large, terms do not seem to vary significantly as between loans to small and larger businesses, except that interest rates are usually higher for the former. Terms seem not to have changed significantly since 1954 except that interest rates were higher.

(10) Since evaluation of credit risks is not an exact science, the assessment of the creditworthiness of borrowers varies somewhat from one bank to another, but with fewer variations among communities of like size. The partly subjective nature of bank credit standards must be kept in mind in considering the reasons reported by banks for rejecting loans.

(11) The primary reasons reported for rejecting loan applications from small business concern the creditworthiness of the borrower, rather than bank lending policies of banking laws and regulations. The most important reasons by far were inadequate owner's equity, poor earnings record, and questionable management ability, indicating an excessive degree of credit risk. Also important were inadequate collateral and excessive maturity.

(12) Scattered reports from banks with complete records on loan rejections suggest that in the latter half of 1957 the proportion of total formal business loan applications rejected probably amounted to no more than one-tenth of applications, with the great majority of applications as well as rejections involving small business.

(13) The interview results suggest that substantial efforts are made at most banks to find some way in which to grant business credits requested, even if for a reduced amount, or with added collateral or other protection. Before rejecting loans, banks appear to consider various means of making the loan "bankable."

(14) An analysis of changes in bank loans, investments, and deposits from mid-1954 to mid-1957 suggests that the main weight of the huge increase in business-loan demand, apparently stemming mainly from large concerns in connection with the boom in plant and equip-

ment outlays during the period, tended to fall on large banks in large metropolitan areas. This was confirmed by the interview responses, in which a much higher percent of the large banks reported an increase in the number of business-loan applications between 1954 and 1957, from all sizes of borrowers, than did the smaller banks.

(15) At the same time the larger banks, first, failed to share proportionately in deposit gains and, later, lost deposits and hence loanable funds. Thus, these banks were in the poorest position, relatively, to meet the loan demand, and therefore experienced the greatest problems of credit rationing, even though they liquidated a very large volume of securities. Smaller banks, with more ample loan funds, apparently had less demand from business.

(16) The business-loan-survey results, reported elsewhere, indicate that from 1955 to 1957, loans to large- and medium-size firms rose relatively more than loans to small firms. The largest banks, however, showed a larger percentage increase in loans to small firms than did the smaller banks. The replies of banks to the interview questions on the trend in loan applications and rejections for various size firms, and to questions on changes in various loan policies, suggest that the disparate loan gains shown by large compared to small borrowers resulted mainly from differences in the strength of demands, but also, to a lesser extent, from the impact of monetary restraint and the resulting changes in bank policies.

(17) A considerably higher proportion of banks in large metropolitan centers indicated a rise in the number of loan rejections, both from small and larger firms, than was the case with banks in small centers. A majority of the latter reported that the number of loan rejections had remained unchanged or had decreased in the 1954–57 period. This tends to confirm other indications that the problem of credit rationing was most acute at the largest banks.

(18) During the period of monetary restraint, in which the number of business loan rejections was rising, there was no change in the 3 main reasons for loan rejections, reported in point 11 above. The only significant change in reasons for rejections, according to the banks interviewed, was the growing importance of the borrower's lack of an established deposit relationship or an unwillingness to maintain an adequate compensatory balance.

(19) During the period of monetary restraint, the changes in bank loan policies through which the process of credit rationing adjusted the demand for business loans to the available supply of funds were reported by the banks to have been made applicable to all sizes of borrowers. Such policy changes were reported mainly by large banks, with very few changes indicated by smaller banks. While the effects of more restrictive loan policies were felt both by small and large firms, on net balance the greatest impact was probably on small firms.

(20) The principal changes in business-loan policies which were reported were an upgrading of credit standards, which no doubt favored larger borrowers; an increasing stress on compensatory deposit balances as a condition for obtaining credit, which was reported to have been applied especially against large firms; a growing preference for established borrowers over new customers, which would tend to have an adverse effect on newly established small firms, and, also, to a lesser extent, on large national firms seeking to borrow from additional banks; and a growing priority given to local customers as

against nonlocal borrowers, which would tend to favor smaller business.

APPENDIX A

QUESTIONNAIRE FOR INTERVIEWS WITH COMMERCIAL BANKS ON SMALL BUSINESS FINANCING

Name of bank	Name(s) of officer(s) interviewed:
Location of bank	1.
Total deposits (6–6–57)	2.
Total commercial and industrial loans (6–6–57)	3.
Member or nonmember bank (circle)	Name of interviewer
	F. R. Bank of

Definition of samll business: In the subsequent questions, utilize the following definitions of *samll business.*

In the following lines of business:	*Firm is a SMALL Business if it has:*
1. (*a*) Retail trade	Total assets less than $50,000
(*b*) Public utilities	
(*c*) Construction firms	
(*d*) Service firms	
2. (*a*) Wholesale trade	Total assets less than $250,000
(*b*) Commodity dealers	
(*c*) Real estate firms	
(*d*) Manufacturing or mining firms *except* those listed below	
3. Manufacturers of:	Total assets less than $1,000,000
(*a*) Food-liquor-tobacco products	
(*b*) Textile-apparel-leather products	
4. (*a*) Manufacturing or mining firms producing:	Total assets less than $5,000,000
Metal or metal products	
Oil-coal-chemical-rubber products	
(*b*) Sales finance companies	
5. All other nonfinancial business not listed above	Total assets less than $50,000

Bank Code No.
Deposit Size Class
(6–6–57)
F. R. District No.

I. AVAILABILITY AND COST OF BANK CREDIT TO SMALL BUSINESS

A. Does your bank make any special efforts to accommodate small-business borrowers? (e. g., through various loan policies, through a small-business loan department, etc.) If so, please explain.

B. Does your bank extend credit to *small* business in any of the following forms?*

(Check one answer on each line)

	Frequent	Occasional	Rare	Never	If "rare" or "never," briefly indicate why
1. Financing of commercial, industrial or farm equipment:					
(*a*) Direct loans					
(*b*) Paper purchased from dealers					
(*c*) Paper rediscounted from finance companies					
2. Purchase, or acceptance of pledge of consumer paper from retail stores or dealers:					
(*a*) Auto dealers					
(*b*) All other retailers					
3. Accounts receivable financing					
4. Unsecured loans:					
(*a*) Term					
(*b*) Under lines of credit					
(*c*) Other					
5. Loans secured by inventory					
6. Loans secured by guarantees, endorsements, leases, etc					
7. Construction loans					
8. Mortgage loans on business properties					
9. Loans secured by collateral unrelated to business (life insurance, securities, home mortgages, etc.)					
10. Other (specify)					

*NOTE.—When a respondent bank checks "Frequently" in any of the above spaces in (1) through (10), please *fill out* the corresponding section of the *Supplementary Schedules.*

II. CREDIT EXTENSIONS TO NEW FIRMS

(NOTE.—Reference is made below to newly organized business firms or those first established within the past 24 months.)

A. Do you extend credit at all to *new* firms (as defined above)? If so, do the forms in which credit is extended (as listed above) tend to differ from the forms used to extend credit to *established* businesses?

B. If you lend to *new* firms, are the terms more conservative than in lending to *established* small businesses? In what regard, and why?
C. If it is your practice *not* to lend to *new* firms, please indicate the reasons for this practice.

III. Credit Extension to Established Small Enterprises With New Ownership or Control

(Note.—Reference is made to established business firms on which control or ownership has been transferred, *in whole or in large part*, within the past 24 months.)

A. Do you extend credit at all to *established small enterprises* having substantially *new ownership or control?* If so, do the *forms* in which credit is extended tend to differ from the forms used to extend credit to established businesses?
B. If you lend to established small enterprises having new ownership or control, are the terms more conservative than in lending to businesses in which the ownership has not recently changed? In what regard and why?
C. If it is your practice *not* to lend to established small enterprises with new owners, please indicate the reason for this practice.

IV. Loan Rejections

(Note.—In the questions in this section, consider not only *formal* rejections of credit applications by the loan committee, but *all* rejections—including those applications, *however informal*, that are screened out on first contact.)

A. *Reasons for loan rejections involving SMALL Business*

1. In the following list of reasons for rejecting loan applications of *small* business, please indicate the relative frequency with which such reasons occur.

(Check one answer in each line)

Reasons involving credit worthiness of borrower	Frequent	Occasional	Rare	Never
1. Not enough owner's equity in business				
2. Questionable management ability				
3. Poor earnings record				
4. New firm with no established earnings record				
5. Poor moral risk				
6. Collateral of insufficient quality				
7. Slow and past due in trade or loan payments				
8. Other reasons (specify)				

(Check one answer in each line)

Reasons involving bank's overall policies†	Frequent	Occasional	Rare	Never
1. Line of business not handled by bank				
2. Type of loan not handled by bank				
3. Requested maturity too long				
4. Loan portfolio for type of loan already full				
5. Applicant has no established deposit relationship with bank				
6. Other reasons (specify)				

(Check one answer in each line)

Reasons, if any, involving Federal or State banking laws or regulations which prevent the making of loans you would otherwise make	Frequent	Occasional	Rare	Never
1. Loan too large for bank's legal loan limit				
2. Other reasons (specify)				

2. Of all of the preceding reasons, which ones would you consider to be the primary ones (e. g., the three most important) in accounting for rejection of loan applications by *small* business?

3. Have the primary reasons for loan rejections involving *small* business changed significantly since 1954?

B. Records on business loan rejections (including all sizes of business)

(In the questions below, consider not only formal rejections by the loan committee, but *all* rejections—including those applications that are screened out without ever reaching the loan committee.)

1. What form of review, if any, is made at a higher level of loan applications rejected?

2. Are any kind of memoranda or summary reports made within the bank on business loan applications or inquiries that are turned down?

3. Does the loan committee maintain minutes which indicate business loan applications rejected?

4. *Only* if the answer to (2) or (3) above is "yes," can the bank give us an estimate, *using such records*, concerning the following:*

(*a*) About what *proportion* of the *number* of business loan requests were rejected in the past few months?

(*b*) How much of this involved *small* business?

5. Regardless of the answer to (2) or (3) above, can the bank indicate which of the following phrases would best describe the *trend* in business loan applications and rejections *since 1954:*

(Check most appropriate answer to (a), (b), and (c) only if bank has firm knowledge of the trend)

	No change	Increase			Decrease		
		Small	Moderate	Large	Small	Moderate	Large
(*a*) Number of business loan applications:							
Small business							
Larger firms							
(*b*) Number of business loan rejections							
Small business							
Larger firms							
(*c*) *Proportion* of business loan applications rejected (e. g., has number of rejections risen relatively faster than number of applications?):							
Small business							
Larger firms							

*NOTE.—If necessary, interviewer should allow the bank a few days to make the computations, and then have the bank mail or phone in the information.

C. *Efforts to assist rejected loan applicants among small business*

1. In case a loan applicant is turned down, is any effort made to refer him to some other financial institution (not necessarily a bank and including the Small Business Administration) which might accommodate him?

2. In case equity capital or long-term credit is desired, does your bank aid in negotiating arrangements with outside investors? If so, what are the sources?

D. *Loan-rejection survey*

As a means of ascertaining more precisely the nature of loan rejections, and their number relative to credit applications granted, could the bank give us the following information for some *future* period of several months, to be specified in advance (e. g., early in 1958), during which special records would be kept?

1. Number and dollar volume of all *requests* for business-purpose loans during the period.

2. Number and dollar volume of business loans *made* during the period.

3. Each business loan request *rejected* during the period, classified by line of business, size of business, and reason(s) for rejection. (This would include loan applications screened out in the first interview, as well as those rejected after more formal consideration.)

V. Effect of Monetary Restraint on Business Loans, With Special Reference to Small Business

A. During the period of monetary restraint since end of 1954, *what changes* have taken place in your *loan policies* with respect to the following:

1. Short-term loans to large versus small business
2. Term loans to large versus small business
3. Loan renewals for small business
4. Standards of credit-worthiness for small business
5. Policy of maximum ratio of total loans to total deposits, or other means of determining when bank is fully loaned up
6. New versus established customers
7. Types of industries accommodated
8. Secured versus unsecured loans to small business
9. Compensating deposit requirements for small business borrowers
10. Lines of credit, or firm commitments to extend credit, to individual firms
11. Loans to nonlocal borrowers:
    (*a*) Direct loans.
    (*b*) Participation loans with correspondents.

B. It has been noted that over the past several years, the accounts receivable of many large firms have tended to increase faster than their sales. Do you have any information as to whether the expanded bank borrowings by your larger customers have occurred because these firms were, in turn, extending more trade credit to their smaller customers and suppliers? Please explain.

C. To what extent do you enforce standards for the trade credit extended by your borrowers? What problems have you encountered recently in this area? How has this changed since 1954?

VI. General Questions

A. In the period since the end of 1954, what changes have taken place, and for *what reasons*, in the demand for bank credit by:

1. Small business?
2. Larger firms?

If an increase in demand by larger firms has occurred, has it involved existing or new lines of credit? Please explain.

B. Do you have any additional information or views on the problems of small business financing?

C. Do you have any suggestions as to how the availability of credit to small business might be improved? Specifically, do you have any recommendations on matters of business practice or law that would lead to a reduction in the differentials in interest rates as between large and small firms, or to an increased availability of funds to smaller business?

INTERVIEWS WITH COMMERCIAL BANKS ON SMALL BUSINESS FINANCING

Supplementary Schedules

Name and location of bank_____
Name of interviewer_____
F. R. Bank of_____

NOTE.—In question I–B of the questionnaire, dealing with *forms* in which credit is extended to small business, if a respondent bank reports "frequently" on any line (1) through (10), please complete the corresponding section of this supplementary schedule.

	Section
1. Equipment financing (commercial, industrial, or farm)_____	1
2. Purchase or pledge of consumer paper from retail stores or dealers_____	2
3. Accounts receivable financing_____	3
4. Unsecured loans (term and other)_____	4
5. Loans secured by inventory_____	5
6. Loans secured by guarantees, endorsements, and leases_____	6
7. Construction loans_____	7
8. Mortgage loans on business properties_____	8
9. Business loans secured by collateral unrelated to the business_____	9
10. Other loans to small business_____	10

Bank Code No._____
Deposit Size Class_____
(6–6–57)
F. R. District No._____

1. *Financing of Commercial, Industrial, or Farm Equipment for Small Business*
(Includes not only direct loans, but paper purchased from dealers or discounted from finance companies)

(*a*) Which lines of business are the most important users of equipment financing? Please explain.

(*b*) Are there any lines of business to which you are reluctant to provide equipment financing? Please explain.

(*c*) Do you have any policy as to the nature of equipment that is satisfactory as collateral? (Multipurpose versus specialized equipment, equipment on which there is rapid depreciation or obsolescence, etc.)

(*d*) Please indicate your *present* typical terms (i. e., the percentage of the price of new assets or of the appraised value of used equipment that can be financed, the typical *effective* interest rate, and the typical maturity) and your

terms as of 1954, with respect to any important type of equipment which you finance for *small* business:

Type of Equipment	Percentage financed				Typical Maturity				Typical interest rate			
	1957		1954		1957		1954		1957		1954	
	New	Used	New	Used	New	Used	New	Used	New	Used	New	Used
Machine tools												
Commercial refrigeration												
Store fixtures												
Construction equipment												
Trucks and trailers												
Other (specify)												

(e) Has there been any significant increase in your equipment financing for *small* business since 1954?

If so, why?

To what lines of business?

(f) Do the above terms and conditions for equipment financing of *small* business differ significantly from the terms applicable to larger firms? If so, specify.

2. *Purchase or Acceptance of Pledge of Consumer Paper from Retail Stores or Dealers*

(In answering the following questions, distinguish between auto dealers and all other retailers or dealers.)

(a) With respect to facilitating the sales of *small* retail stores and dealers who are customers of your bank, do you:

Make loans to such firms on a *pledge of chattel mortgages* on equipment *sold* by the stores or dealers? If so, please give the details of a typical arrangement:

Auto dealers:

All other retail stores or dealers:

Purchase installment paper generated by *small* retail stores and dealers?

If so, please give the details of a typical arrangement, and indicate what proportions of the paper are bought:

With recourse ------

Without recourse ------

With repurchase agreements from the manufacturer of the equipment ------

With other special provisions ------

Auto dealer:

All other retail stores or dealers:

(b) Have either of the above types of financing for *small* retail stores or dealers increased since 1954? If so, for what reasons?

Auto dealers:

All other retail stores or dealers:

3. *Accounts-Receivable Financing for Small Business*

(a) To what *lines* of small business do you extend accounts-receivable financing?

(*b*) Apart from line of business, what are the general characteristics or circumstances of small firms that apply for accounts receivable financing?

(*c*) What proportion of your lending on the pledge and/or assignment of accounts receivable is done on a—

Notification basis ____

Nonnotification basis ____

(*d*) Do you have any policy as to the minimum annual sales that a customer must have in order to be considered for accounts receivable financing?

(*e*) Do you have any policy as to the maximum amount of a customer's total receivables that you will finance? If so, how is this maximum determined?

(*f*) Of the receivables that are acceptable to you for financing, what is the percentage of face value which you advance, and how is this percentage determined?

(*g*) Do you have any minimum credit-rating standards (e. g., Dun and Bradstreet) on accounts receivable that you will accept for pledge?

(*h*) What is the minimum size of an individual account receivable that you will accept for pledge?

What was it in 1954?

(*i*) With respect to your receivables financing for *small* business:

1. What is the typical effective interest rate at present?

What was it in 1954?

2. What is the typical service charge at present, as a per cent of the outstanding balance?

What was it in 1954?

3. What is the typical *total* charge as a per cent of the outstanding balance, expressed in a per annum rate?

What was it in 1954?

(*j*) Has your accounts receivable financing for small business become more prevalent in the past two years? If so, why?

What lines of business accounted for the increase?

4. *Unsecured Loans for Small Business* (Includes term loans, loans under lines of credit and any other unsecured loans)

(*a*) What lines of small business are most likely to seek *term* loans? Why?

(*b*) How has the demand from small business for *term* loans changed since 1954?

How much has this been due to changes in their alternative sources of financing?

(*c*) Has your willingness to make *term* loans to small business changed since 1954?

Are there any particular lines or types of business to which you are reluctant to make *term* loans? If so, why?

(*d*) What is the typical maturity of your term loans to small business?

Has this changed since 1954?

(*e*) What is the typical effective interest rate?

How much has this changed since 1954?

(*f*) Have there been any significant changes in the protective covenants contained in the loan agreement since 1954?

(*g*) Do *term* loans to *small* business differ substantially from term loans to *larger* business? If so, how and why?

(*h*) What general credit standards do you require for *unsecured lines of credit* to small business?

(*i*) What procedure is followed in establishing such lines?

(*j*) What proportion of your *small* business borrowers have *unsecured lines of credit?*

What is the proportion among larger borrowers?

(*k*) Have any changes occurred since 1954 in the relative importance of *unsecured lines of credit* to small business? If so, explain.

(*l*) If you make any additional *unsecured* loans to *small* business, other than term loans and loans under lines of credit, please explain the general terms and conditions under which such credit is available, and what changes have occurred in this type of lending since 1954.

5 *Loans to Small Business Secured by Inventory*

(*a*) What are the chief *lines* of business which you finance by this means?

(*b*) How has the demand from small business for loans on inventory changed since 1954?

How much has this change been due to changes in their alternative sources of financing?

(*c*) Has your willingness to make loans on inventory to small business changed since 1954?

(*d*) Are there any lines or types of inventory which you will not finance, or are reluctant to finance? If so, why?

(*e*) What is the typical maturity of your inventory loans to small business?

(*f*) Do many customers borrow fairly continuously through renewals to finance inventory?

If so, in what lines of business?

Has this become more prevalent since 1954?

(*g*) How does your collateral policy vary by type of business?

Have your collateral requirements changed since 1954?

(*h*) On loans to *small* business secured by inventory, what is the typical effective:

1. Lender charge?
2. Total cost to borrower?

How much have each risen since 1954?

(*i*) Does financing inventory of *small* business differ substantially from financing inventory of *large* business? If so, why and how?

6. *Loans to Small Business Secured by Guarantees, Endorsements, Leases, Etc.*

(*a*) What lines of small business are most likely to seek credit on the basis of endorsements, guarantees, leases, etc.?

(*b*) What are the most common types of arrangements?

Endorsement of note?

Use of lease?

Guaranty by another concern?

Other (please describe)?

(*c*) How have the demands from small business for credit based upon endorsements, guarantees, leases, etc. changed since 1954?

How much has this change been due to changes in their alternative sources of financing?

(*d*) Has your attitude toward such loans changed since 1954?

Are there any particular lines or types of business to which you are reluctant to make this kind of loan? If so, why?

(*e*) How do the terms obtained compare with alternative methods of financing available to small business?

Maturity?

Effective interest rate?

(*f*) Do guaranteed (endorsed, lease-backed) loans to small business differ substantially from such loans to larger business? If so, why?

7. *Construction Loans to Small Business*

(*a*) Has the demand from smaller contractors for construction financing changed since 1954? If so, how and why?

How much has this been due to changes in their alternative sources of financing?

(*b*) Has your willingness to make construction loans to small contractors or builders changed since 1954? If so, why?

(*c*) Are there any conditions which attach to your making construction loans such as—

established deposit relationship?

take-out for mortgage?

other?

How do these differ from 1954?

(*d*) What is the typical maturity of your construction loans?

(*e*) What is the typical effective interest rate on construction loans?

How much has it risen since 1954?

(*f*) Do construction loans to small builders differ substantially from construction loans to large builders? If so, how and why?

8. *Mortgage Loans to Small Business on Business Properties*

(*a*) What lines of small business are most likely to seek mortgage loans? Why?

(*b*) Has there been much change in the demand from small business for mortgage loans since 1954?

How much has this been due to changes in their alternative sources of financing?

(*c*) How has your willingness to make mortgage loans to small business changed since 1954?

Are there any types or lines of business to which you are reluctant to make mortgage loans? If so, why?

(*d*) What is the typical maturity of your mortgage loans to small business? Has this changed since 1954?

(*e*) What is the typical effective interest rate?

How much has this changed since 1954?

(*f*) How does your policy with respect to appraisal standards, loan-to-appraisal ratios, and protective covenants in the mortgage and loan agreement vary by type of business?

(*g*) Have there been any significant changes in the appraisal standards, loan-to-appraisal ratios, or protective covenants contained in the mortgage or loan agreement since 1954?

(*h*) Do mortgage loans to small business differ substantially from mortgage loans to larger business? If so, how and why?

9. *Loans to Small Business Secured by Collateral Unrelated to the Business* (E. g., secured by life insurance policies, securities, home mortgage, etc.)

(*a*) Are there any particular lines or types of small business that borrow on the basis of collateral unrelated to the business?

(*b*) Why do such firms use this type of bank financing instead of other forms of bank loans?

(*c*) On loans to small business secured by collateral unrelated to the business, what is the typical maturity?

Has it changed since 1954?

What is the typical effective rate of interest?

How much has the rate risen since 1954?

(*d*) Has there been any change in the demand from small business for loans collateraled by nonbusiness property since 1954? If so, why?

How much of this change has been due to changes in their alternative sources of financing?

(*e*) Are *small* businesses more likely to borrow on the basis of collateral unrelated to the business than *larger unincorporated* firms? If so, why?

10. *Other Loans to Small Business*

If there are additional forms in which the bank *frequently* extends credit to *small* business, please specify the forms, and indicate the general terms and conditions under which such credit is available, how the credit terms have changed since 1954, and how the demand for such loans has changed since 1954.

APPENDIX B

Details of sample of banks interviewed

Size of area	Number of banks			
	Large [1]	Medium [2]	Small [3]	Total
Metropolitan areas with over 500,000 population	97	61	60	218
Metropolitan areas with population between 50,000 and 500,000	20	66	71	157
Centers under 50,000 population		26	271	297
Total	117	153	402	672
Member banks				517
Nonmember				155
Total				672

[1] Over $100,000,000 in deposits.
[2] $20,000,000 to $100,000,000 in deposits.
[3] Under $20,000,000 in deposits.

NOTE.—The number of responses to various questions asked of commercial bankers varied. The above data, therefore, indicate the most typical number of responses.

IV. SURVEY OF COMMERCIAL FINANCE COMPANIES AND FACTORS[1]

INTRODUCTION

Commercial finance companies and factors are specialized financing institutions whose operations are particularly adapted to the needs of smaller businesses in manufacturing and wholesale trade. These financing institutions have developed operating techniques for supplying credit to businesses that cannot qualify for ordinary bank loans. They provide a continuing supply of credit as needed, based on receivables, as well as additional credit to meet seasonal needs and special opportunities for expansion. They also give managerial guidance in budgeting and financial management. Many small concerns with limited capital can use the financing available from commercial finance companies and factors for expansion purposes in periods when lack of financing is the major limiting factor.

Commercial finance companies and factors play a significant role in the financing of small businesses in manufacturing and wholesale trade. The bulk of their customers are small concerns: borrowers at the end of 1956 appeared to have average total assets of $350,000 to $650,000.

While the number of small businesses financed by these specialized financing institutions is increasing as their services become better known, it is small relative to the small-business population. Rough estimates indicate that they probably had less than $2 billion of credit outstanding and were directly financing fewer than 20,000 borrowers at the end of 1956. Many more thousands of business customers were financed indirectly. Commercial accounts receivable financing was not generally available to the smaller firms in retailing, construction, and service which constitute a large proportion of the small-business population.

Financing arrangements based on accounts receivable usually entail substantial costs for credit investigation and for bookkeeping in handling individual sales invoices and payments on the accounts. As in the sales financing of consumer goods, the charge necessarily reflects the cost of services performed and the risk as well as the interest cost

[1] Francis R. Pawley, economist, Board of Governors, prepared this report, and, with other members of the committee for part II, planned the survey. System staff associated with Mr. Pawley in conducting the interviews were: Paul S. Anderson, assistant financial economist, and Russell Chisholm, financial statistician, Federal Reserve Bank of Boston; Lawrence S. Ritter, economist, Jack M. Guttentag, economist, and George Budzeika, economist, Federal Reserve Bank of New York; David P. Eastburn, vice president, and Reese D. Jones, Federal Reserve Bank of Philadelphia; George W. Cloos, senior economist, Federal Reserve Bank of Chicago; Oscar Loitterer, business economist, Federal Reserve Bank of Minneapolis; and Charles R. Petersen, associate economist, Federal Reserve Bank of San Francisco.

Francis R. Pawley. Princeton University, bachelor of arts, 1923; Harvard Graduate School of Business Administration, 1923–25; Columbia University Graduate School of Economics, candidate for doctor of philosophy degree, 1941. Standard Statistics Co., industrial analyst and editor, automotive and retail trades, 1928–40; War Production Board, Automotive Division, Chief Economist, 1942–45, Board of Governors, Federal Reserve System, economist, stock market and consumer credit, 1946 to date. Publications on finance: Directly Placed Finance Company Paper, Federal Reserve Bulletin, December 1954; Survey of Finance Companies, Mid-1955 (coauthor) Bulletin, April 1957.

of the money advanced. In view of its cost, commercial financing may not be advantageous for some businesses, especially those with limited prospects for growth.

Commercial financing and factoring are particularly significant in a study of small business financing because credit is made available to small businesses that do not have access to bank credit or to the markets for equity and long-term debt funds.[2] The financing institutions as a group have strong borrowing power in the short- and long-term money markets; in effect, they pass this borrowing power on to their less creditworthy customers. This borrowing power enabled this financing group to expand financing by 50 percent from 1954 to 1957—a period of gradually increasing monetary and credit restraint. Many companies interviewed in the survey reported that they could have expanded even more had they been able to find clients.

This survey of commercial finance companies and factors was undertaken by the Federal Reserve System in November and December 1957 to provide information on two main questions, with particular reference to small business: (1) The availability and cost of financing to various kinds and sizes of businesses, and (2) the changes in availability and cost during the 1954–57 period of gradually increasing monetary and credit restraint. Information was obtained from 46 commercial finance companies and factors in 11 major cities from Boston to San Francisco. Thirty of these companies provided continuous data for the 3 years 1954–56. Most of the larger companies and a widespread sample of smaller companies are included; the financing volume of the full sample in 1956 is estimated at more than three-fifths of the industry total.

NATURE OF COMMERCIAL FINANCING AND FACTORING

Commercial finance companies and factors represent one class of the general family of specialized finance companies that also includes sales finance companies and personal finance companies. Since the personal finance companies lend directly to consumers, they are not covered in this survey. Sales finance companies, however, finance businesses as well as consumers. For example, they finance inventories of dealers in automobiles and in other consumer durable goods, and also dealers' sales through purchase of their customers' retail installment contracts. In contrast to commercial finance companies and factors whose clients sell to businesses, sales finance companies are adapted primarily to handling consumer accounts which involve a different kind of specialized operating technique. Some sales finance companies also own factoring and/or commercial financing subsidiaries, or operate divisions for factoring or commercial financing.

The main types of financing covered in this survey can be divided into three categories: (1) Accounts receivable financing, including factoring, (2) time-sales financing of equipment, and (3) accommodation financing including loans on inventory, chattels, or real estate, and the rediscounting of paper of other financial institutions. Data on these operations are summarized in table 1.

[2] Factors perform credit and collection services for clients that can qualify for unsecured bank loans but they also service and advance funds to businesses that cannot qualify for as much unsecured bank credit as they could use profitably.

TABLE 1.—*Kinds of financing by commercial finance companies and factors, 1956, group of 30 companies*

[Dollar amounts in millions]

Type of financing	Number of companies	Number of clients	Volume [1]	Outstandings end of year [2]
Accounts receivable, total	37	3,744	$4,618	512
Loans on receivables	22	1,833	2,131	202
Factored receivables	15	1,911	2,487	310
Equipment financing	15	[3] 3,694	329	314
Other financing:				
Inventory financing	19	456	136	46
Rediscounts	6	220	130	76
All other	14	1,481	121	70
Total	[4] 30	[5] 9,595		

[1] Volume means the face amount of receivables or other paper assigned, purchased, or discounted during the year; for loans on receivables and factored receivables, it is the volume of sales invoices assigned or purchased rather than the volume of credit extended during the year. For equipment financing it is the volume of credit extended.

[2] Outstandings for loans on receivables and factored receivables mean the face amount of receivables assigned or purchased and outstanding at the end of the year, including amounts withheld from clients pending collection of the accounts and the portion of factored receivables not cashed by clients before their average due date. Outstanding equipment financing is the amount of credit.

[3] Combines the number of equipment manufacturer and distributor clients whose time-sales paper was purchased or discounted with some individual debtors on chattel mortgages or installment contracts.

[4] Detail does not add to total because individual companies engage in several types of financing.

[5] Includes duplications of accounts receivable and equipment financing clients who also obtained other kinds of financing.

NOTE.—The 30 companies include a large proportion of those most active in equipment financing and a relatively large proportion of the larger factors but a smaller proportion of companies engaged in lending on receivables.

Accounts receivable financing arrangements are of two kinds: (1) loans or advances on the security of assignments of open accounts receivable, known as "nonnotification financing," in which the lender usually neither assumes the risk of credit loss on the accounts nor collects the accounts from the individual debtors, and (2) "factoring" or "notification financing," in which the factor purchases accounts receivable, generally without recourse on the client (seller) for any credit loss and with notification to his trade customers (purchasers) that their accounts have been purchased by and are payable to the factor on their average due date. In this report, these two financing arrangements are called "loans on receivables," and "factoring," respectively. A number of the companies surveyed engage in both kinds of receivables financing, in some cases through separate subsidiaries.

In this report "accounts receivable financing" refers to purchases (factoring) of accounts receivable by factors and assignments of receivables to commercial finance companies. These are combined to obtain a single measure of the accounts receivable against which funds are advanced. For convenience, the amount of receivables assigned, purchased, or outstanding is referred to as "financing." Credit advanced against accounts receivable usually amounts to 80–90 percent of the face amount of the receivables.

Total accounts receivable financed and outstanding at the end of 1956 were $512 million, nd the volume of receivables (sales invoices) assigned or purchased over the year was $4,618 million for the group of 30 financing institutions providing data for 1954–56. The total number of borrower arrangements, or clients, for accounts receivable financing was 3,744 (table 1).

Accounts receivable financing is a continuing arrangement for the financing of open book accounts, as distinguished from installment accounts, trade acceptances, or promissory notes. It is distinguished from "one-time" loans secured by pledge of receivables, such as a 90-day bank loan, by the fact that the loans or advances are made daily on a revolving basis as each sales invoice is assigned or purchased and the account is collected. Receivables financing is short-term in that the advance is self-liquidating as the account is paid, and also long-term in that the financing arrangement often continues for a period of years.

Accounts receivable financing has the direct effect of shortening the period during which the client has to wait for his cash receipts. It also has indirect effects when it enables the client to lengthen the terms extended to his customers and/or accelerate payments for goods purchased from suppliers.

It should be noted that factors (sometimes called "old line factors") perform substantial other services in addition to making advances against receivables. Factors assume the credit risk on the accounts purchased, after checking the credit standing of their clients' customers, collect accounts, and provide management and other services to their clients.[3]

The specialized service of lending on the security of assignments of accounts receivable usually involves the handling of each individual invoice, the processing of each individual payment on accounts (the client generally is required to turn these over to the finance company as he collects them) and the remitting to clients of the excess of collections over advances. Commercial finance companies exercise close supervision over their borrowers' businesses, including the making of regular audit reports of their receivables and payables, and are in a position to help their clients evaluate their credit risks and plan their financial management.[4]

Equipment financing

This is a rapidly growing type of financing. The number of borrowing arrangements of the 30-company group, which included the companies most active in the field, increased one-fifth from 1954 to 1956; equipment financing outstanding at the end of 1956 for the group was $314 million. The volume of paper acquired was small in

[3] A type of credit insurance different from the credit risk service performed by factors is described in appendix B.

[4] Open accounts receivable as a rule are highly liquid assets, and an assignment of these accounts to a commercial finance company is binding between the two parties to the assignment. Reliance upon such assignments as security for "cash" advances, however, raises a number of legal and practical problems in protecting the commercial finance company against loss. One set of problems arises out of variations in State laws related to the steps that the lender must take to "perfect the assignment" so that his title to the account cannot be defeated by subsequent assignees, or by creditors of the borrower in the event of his insolvency. Another set of problems relates to the danger of fraud, such as the assignment of fictitious invoices, conversion of proceeds of assigned accounts, and double hypothecation of accounts. While fraud is infrequent, a single case may involve a very large loss. Potential losses from fraud or insolvency of the borrower are a major reason for expensive investigating and operating techniques involved in lending on receivables, including frequent audits of the client's books, and the practice of handling each invoice and payment on the client's accounts, rather than financing the client's accounts in bulk. More complete descriptions of these specialized services may be found in Walter S. Seidman, Accounts Receivable and Inventory Financing (Masterco Press, 1957); Clyde William Phelps, The Role of Factoring in Modern Business Finance, and Accounts Receivable Financing as a Method of Business Finance, Baltimore, Md., Commercial Credit Co., 1956 and 1957; Raymond V. Saulnier and Neil H. Jacoby, Accounts Receivable Financing, and Financing Equipment for Commercial and Industrial Enterprise, New York, National Bureau of Economic Research 1943 and 1944.

relation to the amount outstanding because of the relatively long maturity of equipment contracts.

Equipment financing for the most part involves the purchase or discount of installment sales contracts for the acquisition of new or used commerical and industrial machinery and, to a lesser extent, leasing contracts. Companies specializing in equipment financing usually purchase the installment contracts from the distributor or manufacturer who sells the equipment ; they also extend credit directly to users of the equipment, particularly contractors. Other companies purchase installment sales contracts as an accomodation to their receivables financing clients.

The benefit of equipment financing appears to accrue mainly to the business-purchaser of the equipment who pays the finance charge because it enables him to lengthen the payment period per dollar of purchase. On this bases the number of businesses financed is a large multiple of the number of equipment selling clients of finance companies.

In some ways equipment financing, involving the time sale of durable goods, is more closely related to retail installment sales financing than to accounts receivable financing. It is included in commercial financing because industrial and commercial equipment rather than consumer goods are financed and because the ultimate debtors are businesses.

Accommodation and other loans

These types of loans take care of special credit needs of individual clients. A heavy seasonal peak of inventories or an exceptional opportunity—to purchase materials or to expand the business—may require more funds than the finance company would normally advance against receivables. In such instances, the finance company may extend additional credit on other security such as inventories, chattels, or real estate. Taken together, accommodation financing accounts for a significant part of borrower transactions—about one-fifth in 1956 for the 30-company group (table 1).

Inventory financing generally is limited to clients who also obtain receivables or equipment financing. The number of clients for inventory financing was one-eighth that for accounts receivable financing. Various security devices may be used, including warehouse receipts, factors' liens, or trust receipts. Such financing by commercial finance companies is usually restricted to resalable raw materials and finished products, and excludes goods in process.

Rediscounts represent finance paper purchased from other lenders. The paper is for the most part consumer goods paper against which the commercial finance company advances funds without undertaking to collect payments of the consumer debtors.

Other financing refers to extensions of credit in a variety of forms, generally to accommodate seasonal or emergency needs for funds. A substantial proportion of clients obtained some accommodation but the amount was relatively small. Such credit may be secured by real estate mortgages or other security; it is rarely unsecured. A small amount of specialized export and import financing is included in this category in the present survey.

KINDS OF BUSINESSES FINANCED

Commercial finance companies and factors provide credit primarily to small manufacturers and small wholesalers. Many kinds of manufacturing and wholesaling establishments obtain advances from these institutions, particularly for loans on receivables. Textile and related lines obtain more factoring credit relative to other manufacturing lines. Through equipment financing small manufacturers and distributors of machinery and equipment obtain immediate funds from sales, while small businesses in retailing, construction, and service lines get credit to make purchases. Many large as well as small finance companies reporting in the survey stressed that there were no rigid rules as to kinds of businesses financed. Exceptions were often made when justified for individual clients.

The ideal client for loans on receivables is one that (*a*) has open account receivables against an identifiable product, (*b*) has business firms for its customers, (*c*) has fairly large average invoices (say at least $100), and (*d*) will be enabled to expand sales and profits as a result of an accelerated cash flow. Manufacturers or wholesalers are the ideal type of client.

No one kind of product was dominant in accounts receivable financing of the commercial finance companies surveyed. Clients included firms in the manufacturing and wholesaling of food, furniture, textiles, machinery, lumber, petroleum products, electronics and electrical equipment, toys, baby clothing, prefabricated homes, auto parts, plastics, vending machines, bottled-gas equipment, and many others. Lines of business not served by one or more companies were those with certain traditional financing practices or financing problems. These included the farm equipment industry where the manufacturer provides the financing; cosmetics where goods are sold on consignment; building where mechanics liens present a problem; dress manufacturing because fashions are so changeable; manufactured aircraft parts where receivables (by trade practice) are not assignable; and perishable goods distribution.

The firm seeking factoring service typically is interested in turning the credit risk and collection function over to the factor. Clients may be unable to collect credit information at low cost. The credit and collection services of the factor in some cases may be more important to the client than an advance of funds.

Long established in financing mills, selling agents, and converters in the textile industry, factoring is still heavily concentrated in that industry. In recent years factoring has been extended to manufacturers and distributors in such lines as furniture, shoes, lumber, metal products, radios, industrial chemicals, athletic equipment and hardware.[5] Concentration in a particular field can be of some advantage to factors. It permits reduction of credit risks and of credit investigation and other costs because of more intensive experience in one field and because the accounts of individual debtors who purchase from two or more of the factor's clients may be combined.

Some old line factors that would like to diversify outside the textile trade have found some remaining prejudice against the notification of

[5] William J. Drake, Outlook for Commercial Finance Companies and Factors, the Commercial and Financial Chronicle, March 8, 1956, estimates that over 90 percent of total factoring volume is accounted for by textile and allied fields.

trade customers that their accounts are being financed. Several of the firms formerly engaged only in factoring have begun to make loans on receivables. Old line factors, however, make such loans only as a preliminary to a factoring arrangement, when purchases from the client have not had the customary prior approval of the factor.

Businesses financed by equipment financing include the sellers and purchasers on installment of most kinds of general purpose equipment or machinery. The major considerations are the creditworthiness of the seller, against whom the finance company generally has recourse for credit losses, and the resale value of the equipment in the event liquidation of the contracts is necessary. Certain types of highly specialized equipment may not qualify for this financing if a resale market is lacking. Heavy construction equipment and machine tools are among the more important types of products involved in equipment financing. Other kinds are laundry and dry-cleaning equipment, dental and surgical equipment, printing equipment, woodworking machinery, dairy and baking equipment, commercial refrigeration, packaging machinery, textile machinery, vending machines, and many others.

SIZE OF BORROWER AND OTHER BORROWER REQUIREMENTS

Survey data indicate that most clients of commercial finance companies and factors are small businesses, as generally defined. Measures of the average receivables outstanding per client are shown in table 2.

TABLE 2.—*Average receivables outstanding per client, 1956* [1]

Type of financing	Number of companies	Number of clients	Average outstanding per client
			Thousands
Loans on receivables, total	13	1,474	$105
Excluding 5 largest clients [2]	13	1,411	82
Factored receivables, total	7	1,616	153
Excluding 5 largest clients	7	1,581	130
Equipment financing, total	6	2,685	101
Excluding 5 largest clients	6	2,655	86

[1] Since the arithmetic mean tends to be weighted by the larger clients, the averages are also shown excluding the 5 largest clients of each company for each kind of financing. Companies that were unable to provide data for their 5 largest clients were omitted from both averages.
[2] Data for 1 company for loans on receivables are for the 3 largest clients.

For the major types of financing, the average receivables outstanding per client at the end of 1956 ranged from $101,000 for equipment financing to $153,000 for factoring; excluding the 5 largest clients of each company for each type of financing, the averages ranged from $82,000 for loans on receivables to $130,000 for factoring. Assuming total assets at 5 times average receivables for manufacturers and 3½ times average receivables for wholesalers, the receivables outstanding indicate that the average client had total assets of $350,000 to $650,000.

Most companies emphasized the flexibility of their requirements as to acceptable size of borrower. The borrower's (client's) character and experience, the growth potential of the business, and the lender's judgment as to the soundness and profitability of the financing arrangement were generally emphasized more than specific rules on

borrower size. With such reservations, which imply frequent exceptions, more than half of the respondents indicated minimum size requirements for borrowers. These size specifications were stated mostly in terms of annual sales, advances on receivables, and net worth.

Minimum sales

A minimum sales requirement is primarily a rule of thumb for indicating whether the potential revenue from financing will cover costs and yield a profit. For this reason, the minimum sales requirement tends to be smaller for clients with lower cost factors, such as relatively large invoices and comparatively large proportions of receivables against which it is safe to make advances. Also the minimum sales requirement tends to decline as size of the finance company declines. The smaller commercial finance companies charge higher rates in order to cover higher costs.

A minimum annual sales requirement in this qualified sense for loans on receivables, as reported by 19 companies, was less than $150,000 for about one-half of the reporting group (table 3). Eight companies similarly specified minimum annual sales for factoring, also shown in the table. The larger finance companies tended to specify the larger sales volume. Only 5 companies reported minimum annual sales requirements for equipment financing, ranging from $50,000 to $500,000.

TABLE 3.—*Minimum annual sales required for borrowers on accounts receivable*

[Number of financing institutions reporting]

Minimum annual sales	Loans on receivables	Factoring
Under $75,000	5	0
$75,000 to $149,000	5	0
$150,000 to $224,000	3	0
$225,000 to $299,000	2	2
$300,000 to $374,000	3	3
$375,000 to $449,000	0	0
$450,000 to $524,000	1	3
Total number reporting	19	8

Other size requirements

Minimum amounts of credit outstanding for loans on receivables were reported by 18 commercial finance companies. These ranged from $10,000 to $60,000. Also, 15 commercial finance companies specified minimum amounts of borrower net worth, from $50,000 to under $10,000 (table 4). Similar requirements were infrequently reported by factors although the minimum requirements of the old line factor appear to be relatively high.

TABLE 4.—*Minimum requirements for credit outstanding and net worth for borrowers on receivables*

[Number of finance companies reporting]

Amount	Credit outstanding [1]	Net worth
Under $10,000	0	5
$10,000 to $19,000	6	4
$20,000 to $29,000	3	4
$30,000 to $39,000	2	1
$40,000 to $49,000	2	0
$50,000 to $59,000	4	1
$60,000 to $69,000	1	0
Total number reporting	18	15

[1] The face amount of receivables outstanding would be about ¼ larger than the amount indicated, based on the typical 80 percent advance against receivables.

Other requirements

Other specific requirements for borrowers usually were also specified to be subject to frequent exceptions. The most frequently mentioned was that the client must be potentially profitable and well managed. Character of management was also considered important in view of the danger of fraud. Some companies specified a favorable record on earnings but others stressed potential rather than realized profits. Age of the client's business was often noted as a requirement for loans on receivables, with 2 years specified most frequently; this requirement was considered important also by factors. Other companies commented that experienced management was more important than age of the business. Age of business appeared to be relatively unimportant in equipment financing.

Other qualifications for clients of commercial finance companies included size of average invoice; location in States with enabling statutes permitting adequate finance charges under the usury laws and permitting use of security devices such as factors' liens and assignment of receivables without notification. Location of client within a reasonable distance of the finance company office in order to reduce auditors' travel time and expenses was mentioned by a few commercial finance companies, but this requirement in itself did not appear generally to disqualify many applicants for this financing.

ADVANCES AGAINST RECEIVABLES

The data on volume and outstandings obtained in the survey are stated in terms of sales (invoices assigned or purchased) and the face amount of receivables held, respectively, rather than in terms of credit extended and outstanding. Since the percentage advanced against each sale invoice also applies to receivables outstanding, the relationship of credit extended to credit outstanding is the same as that of sales assigned or purchased to receivables outstanding.

For loans on receivables, the ratio of credit actually advanced to the face amount of receivables assigned varies with the type of product behind the receivables and the nature of the client's business. The proportion tends to be higher for stable, readily marketable products, and for clients with the better credit standings. The ratio of advances to receivables assigned was reported to be typically 80 percent in late 1957. Of the 29 companies reporting their typical advance, 16 specified 80 percent, and the range was from 65 to 85 percent. The typical reported advance of 80 percent for loans on receivables has shown no change since 1954.

The absolute amount of credit extended may vary widely from client to client, or time to time with any one client, depending on the amount of receivables assigned, which in turn varies with the client's need for funds.

In factoring it is customary for the factor to purchase all of its client's receivables on which it assumes the credit risk and collects payments and undertakes to pay the client for the receivables on their average due date. The credit advanced to individual clients against factored receivables before their average due date (when the factor pays for the purchased receivables) varies, depending on the client's need for funds; in recent years the average advance by old-line factors covered in the survey has been approximately 85 percent.

The proportion of selling price advanced on equipment installment contracts ranged from 67 to 80 percent. Dealer cost of the equipment, rather than a percentage of the selling price, was indicated by some companies as the basis for the loan value. These loan values, however, often appeared to be standards from which deviations might occur in particular transactions.

TURNOVER

The turnover period of receivables is the number of days between sales to customers and receipts from sales. It varies widely for different kinds of products, reflecting the perishability of the product and traditional practices in the trade; for example, it may be as short as 10 days for food products, or as long as 180 days for lumber. A relatively long turnover period for some borrowers may reflect seasonal terms of payment where the product is sold well ahead of the major reselling season and payments are scheduled during the seasonal peak. In this survey typical turnover periods were reported for receivables assigned or sold for financing.

The typical turnover of receivables assigned for loans reported by 26 finance companies ranged from 30 to 75 days (excluding 1 extreme figure). The median or middlemost typical item was 40 days, as shown in table 5. The medians of the longest and shortest turnover reported by the same companies were 90 and 15 days. The shortest turnovers usually applied to food products, including meatpacking.

For factoring operations, the median typical turnover of receivables reported in late 1957 was 46 days, shown in table 5. Medians of the longest and shortest periods were 60 and 30 days.

The typical maturity reported for equipment installment contracts ranged from 1 year to 3½ years, as shown in table 6. For the companies most active in this kind of financing, the typical maturity was 3 years or longer. The maximum maturities reported by larger

companies ranged from 5 to 10 years. The 10-year maximum maturity offer applied to a plan adapted to purchasers' depreciation schedules and requiring 70 percent of the contract to be repaid in half the maturity.

The maturity of equipment installment contracts is the period between the original extension of credit at the time of purchase and the date the final payment is due. The turnover period tends to be about half of the equipment contract maturity. The longer the maturity, the longer the turnover period.

TABLE 5.—*Turnover of receivables, late 1957*

RECEIVABLES ASSIGNED FOR LOANS

[Number of financing institutions reporting]

Turnover period (days)	Typical	Longest	Shortest
Under 10			2
10 to 19			13
20 to 29			2
30 to 39	11		3
40 to 49	9		1
50 to 59	3		
60 to 69	1	1	
70 to 79	1	2	
80 to 99		10	1
100 to 149		4	
150 to 199	1	4	
200 to 499		2	
Total number reporting	26	23	22
Median (number of days)	40	90	15

FACTORED RECEIVABLES

10 to 19			3
20 to 29			1
30 to 39			2
40 to 49	7		3
50 to 59	2	3	
60 to 69	2	2	
70 to 79	1	0	
80 to 99		1	
100 to 149		1	
150 to 200		2	
Total number reporting	12	9	9
Median (number of days)	46	60	30

TABLE 6.—*Maturity of equipment contracts, late 1957*

[Number of finance companies reporting]

Maturity (years)	Typical	Maximum
½ to 1½	2	
1½ to 2½	9	1
2½ to 3½	4	8
3½ to 4½	1	0
4½ to 5½		4
5½ to 6½		1
6½ and over		1
Total number reporting	16	15
Median maturity (years)	2	3

The average turnover period for receivables for all clients combined may be measured from the aggregate annual data on volume and outstandings by dividing 365 days by the ratio of annual sales (or collections; that is, payments on accounts) to receivables outstanding.

Average turnover periods for 1956 for each type of financing reported by the 30-company group are shown in table 12.

The average turnover period of receivables assigned for loans was 33 days in 1956, compared with the median typical period of 40 days in late 1957. The difference between the reported typical period and the computed average, presumably, reflects the different measures of turnover (typical and weighted average) rather than a marked lengthening of turnover from 1956 to 1957. The average turnover period for factored receivables in 1956 was 44 days, compared with a median typical reported turnover of 46 days in late 1957.

In the absence of financing, the receivables turnover period is the prospective waiting period of the borrower for payment of receipts from sales. Financing, in effect, eliminates this waiting period through immediate advance upon the assignment or sale of sales invoices. Hence, the receivables turnover period is a measure of the potential contribution of the financing to the borrower's expansion of sales and profits.[6]

From the lender's point of view, the turnover period is an indication of his cost of providing the financing, including the amount of funds he must obtain in the money market and the volume of work in handling the borrower's accounts, relative to the amount of the finance charges that the borrower pays for the financing. An exceptionally short turnover may make financing unprofitable, because returns within an established maximum finance rate may be inadequate to cover the non-money costs of the financing.

FINANCE CHARGES

Finance charges of the commercial finance companies and factors cover the substantial handling costs of providing their specialized services, including risk bearing, as well as the cost of the money advanced and some provision for profit. The charges may vary somewhat from one client to another with the cost of servicing the client's receivables.

Cost factors previously observed include the size of the average invoice, the location of the client in relation to the finance company's offices, the rate of turnover of receivables, and the risk of fraud, particularly for loans on receivables. Since a considerable part of costs is fixed, the cost per dollar of credit extended tends to decrease as the

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[6] The process by which accounts-receivable financing can add to the borrower's profits, and the role of turnover in this process, may be suggested by a simplified example. Assume that a given business with a 30-day turnover of receivables and monthly sales of $100,000 has the facilities and potential demand to double its monthly sales and gross profits if it can finance the expansion. Since the monthly sales are $100,000, with a 30-day turnover, the receivables outstanding are $100,000 (receivables equal monthly sales). Assume, further, that the borrower's direct costs are 80 percent of sales, and that the finance company will advance 80 percent against receivables.

By assigning its $100,000 of receivables, the business can obtain $80,000 to finance the cost of an additional $100,000 of sales during the following month. The financing then becomes a continuing process: The borrower can obtain the $80,000 additional funds per month needed to double his sales and gross profits by assigning $100,000 of receivables (the $100,000 of additional sales invoices generated each month.) Since direct costs are assumed to be 80 percent of sales, the gross profit margin is 20 percent, and the $100,000 of additional sales, made possible by the financing, return a gross profit of $20,000 per month, or $240,000 per year. With a finance charge of, say, 12.5 percent, the $80,000 average credit outstanding in this example costs the borrower $10,000 a year; this is 4.2 percent of the $240,000 of additional gross profits generated annually by the financing.

The relative cost of the financing to the borrower, at 4.2 percent of the added gross profits in the example, was determined by the assumed turnover period of 30 days. If the turnover period had been shorter, say, 27 days instead of 30, the relative cost would have been 3.8 percent of added gross profits, other conditions being unchanged. See Seidman, op. cit., p. 19, for a similar example, explained in somewhat more detail.

client's volume of sales increases, assuming a reasonable rate of receivables turnover. Costs per client and finance charges also tend to be larger for the smaller finance companies, which usually are not in as good a position as the larger lenders to restrict their financing to the lower cost operations.

Earnings data suggest that charges for commercial financing reflect relatively high costs. Financial statements for a small but significant sample of commercial finance companies, discussed in a later section, show earnings after taxes in 1956 of 12.2 percent on capital funds and 1.7 percent on total resources. These compare with earnings in 1956 of a sample of 71 sales finance companies of 13 percent on capital funds and 1.4 percent on total resources.

An unqualified comparison of bank loan rates and receivables financing rates may materially overstate the actual difference in costs because the financing rate is charged only for the number of days and the amount of credit that is needed.[7]

Charges for loans on receivables are computed on the average daily balance outstanding, and are often expressed as a fraction of 1 percent per day. For convenience in comparisons here, charges have been converted to an effective interest rate per annum; for example, one-thirtieth of 1 percent per day is approximately 12 percent per annum.

The typical reported charge for this financing late in 1957 ranged from 8 to 24 percent (each reported by a single company) in terms of a rate of simple interest per annum. The median typical rate in late 1957 was 14 percent, and the median highest rate was 16 percent (table 7). With the larger companies concentrated in the lower rate end of the scale, the arithmetic mean of typical rates weighted by the amount of receivables outstanding was 12.4 percent in late 1957.

Most companies lending on receivables reported that the finance charge tended to be higher for smaller clients, chiefly because of the higher unit costs of handling a smaller volume of financing. One large company reported that its rates in late 1957 were 13.5 percent for $75,000 to $125,000 cash employed, and 11.3 percent for $400,000 and up.

TABLE 7.—*Finance charge on loans on receivables, late 1957*

[Number of finance companies reporting]

Finance charge (percent per annum)	Typical	Highest	Lowest
0.5 to 3.4			
3.5 to 6.4			3
6.5 to 9.4	1		3
9.5 to 12.4	5	2	14
12.5 to 15.4	15	7	7
15.5 to 18.4	5	10	
18.5 to 21.4	1	4	
21.5 to 24.4	1	4	1
25.5 to 45.4		1	
Total number reporting	28	28	28
Median charge (percent)	14	16	12

Charges by old line factors are in two parts: A per annum simple interest charge on the cash advanced before the average maturity date of the receivables, and a separate flat commission charge, expressed as

[7] See Seidman, op. cit., p. 22, for a hypothetical example in which accounts receivable financing at 15 percent costs the borrower less than a 6 percent bank loan.

a percentage of the face value of receivables purchased, for servicing the receivables (which includes credit investigation, bookkeeping, and collecting) and for assuming the risk of credit loss on them.

About half of the old line factors reported that in late 1957 they were still charging the traditional 6 percent interest rate on cash advanced. The others had raised the interest charge to 7 or 7.2 percent following the increase in the prime bank rate in August 1957. The weighted average typical rate in late 1957 was 6.7 percent.

The median typical flat commission rate charged in late 1957 on the face amount of receivables purchased was 1½ percent, as shown in table 8. The average typical factoring charge, weighted by receivables outstanding, for 5 of the larger factors was 1.4 percent in late 1957. The factoring charge tends to be larger for clients with smaller sales volume with a given size of invoice, because of the higher unit cost of handling smaller volume.

Typical charges for equipment financing, expressed in terms of an effective rate of simple interest per annum, in late 1957 ranged from 11 to 24 percent. The median rate was 13.5 percent, as shown in table 9. With most of the larger reporting companies ranging below the middle rate in the array, the average (weighted by outstandings) was 12.5 percent for 10 companies in late 1957.

TABLE 8.—*Reported factoring charges, late 1957* [1]

[Number of factors reporting]

Charge (percent of receivables purchased)	Typical	Highest	Lowest
½ to 1			4
1 to 1¼	3		5
1¼ to 1½	2	1	1
1½ to 1¾	4	4	
1¾ to 2	1	1	
2 to 2¼		3	
2½ to 2¾		1	
Total number reporting	10	10	10
Median charge (percent)	1½	1⅝	1

[1] This charge is the flat commission rate for assuming the risk of loss on the accounts purchased and handling credit investigation, bookkeeping, and collections on them, rather than the charge for credit advances as such.

TABLE 9.—*Typical finance charge for equipment financing, late 1957*

Charge (percent per annum)	Number of finance companies reporting
10.0 to 11.9	3
12.0 to 13.9	4
14.0 to 15.9	3
16.0 to 17.9	1
18.0 to 19.9	1
20.1 to 25.9	1
Total number reporting	13
Median rate (percent)	13.5

CHANGES IN AVAILABILITY AND COST OF COMMERCIAL FINANCING AND FACTORING, 1954–57

For its inquiry into changes during the period of credit and monetary restraint in the availability and cost of commercial financing and factoring, the survey obtained opinions of company officials as well as data on financing for the period 1954–56 and on some items for late 1957.

The principal findings are:

(1) Credit was more available to small business from commercial finance companies and factors in late 1957 than in 1954, according to the views of a substantial majority of the company officials interviewed.

(2) Data for the 30-company group indicate substantial growth from 1954 to 1956 in all types of financing, and especially equipment financing. Expansion of financing was as great for small as for large clients.

(3) For receivables financing generally, the amount of credit outstanding increased at an accelerated rate from 1954 to 1956, as new credit extended rose faster than collections on accounts. This suggests that financing made a net contribution to expansion of sales in this period, and that credit became more available in this sense. For loans on receivables, the increase in the average amount of credit outstanding to clients kept pace with the increase in sales financed. For factoring, average credit outstanding increased more than the volume of sales financed, as factors financed a somewhat longer payment period for their clients' customers, at the clients' expense. For equipment financing, the accelerated increase in average credit outstanding apparently contributed substantially to expansion of purchases (sales).

(4) Commercial finance companies and factors borrowed both short- and long-term funds and, according to a small number of balance sheets, they increased their indebtedness in relation to capital funds in this period.

(5) Finance charges increased somewhat from 1954 to late 1957.

Company views on availability of commercial financing and factoring

Officials of the finance companies and factors were asked in late 1957 for their views on the availability of commercial financing compared with 1954, and to make suggestions for increasing the availability of credit to small business.[8]

Changes in availability.—It was the view of a substantial majority of company officials interviewed that commercial financing and factoring were more available to borrowers in 1957 than in 1954. For loans on receivables, 18 out of 24 companies reported that, as compared with 1954, this type of financing was more available in 1957. Four companies thought it was about as available as in 1954, and 1 company noted that its own financing was less available to the smaller

[8] For the type of question asked, see survey questionnaire in appendix A.

business than in 1954 because it had become more selective in choosing its clients. For factoring and for time sales of equipment, increased availability over the period was also the majority view.

These opinions of officials were generally confirmed by their reports that minimum qualifications for borrowing clients had not been lifted as business expanded from 1954 to 1957. The few companies noting changes reported both increases and decreases. As one official put it, commercial financing (loans on receivables) is more available now because there are "more firms, better staffed, better financed, better known, now." Others observed that commercial banks were becoming more active in accounts receivable financing; that "there is a scarcity of clients (in late 1957)"; "no shortage of funds"; "we actively solicit business now"; "almost all [applicants] can get a home"; "we have unused borrowing capacity"; "no trouble getting bank credit"; "there is ample credit"; and "finding potential borrowers is the hardest thing in the world to do."

Suggestions for increasing availability to small business.—The most frequent suggestion was to reduce the cost of money, particularly of bank credit. Another frequent suggestion, referring to loans on receivables, was that the laws in some States be changed. Mentioned specifically were those usury laws which limit the commercial financing available to small businesses, including unincorporated businesses, when they can be financed profitably only at high rates; and laws requiring notification of the debtor to secure accounts, or otherwise limiting the use of assignments as a security device.

Several officials held the view that commercial financing was readily available to practically all small businesses that qualified for it and that nothing much could be done to reduce the costs to small business. It was observed that the cost of money as such, aside from the costs and risks involved in lending it, was only one factor in the total costs of the financing and that this money cost was not directly related to the size of the business as such. The other cost elements of financing small businesses were said to be inherent in the nature of such businesses; for example, in the size of their average sales invoice, their sales volume, or the experience of their managements. In any event, it was noted, the net cost of the financing to the small business borrower may be more dependent on his opportunities for profitable growth than on the size of the finance charge.

Some officials referred to lack of equity funds as a major problem in small-business financing. The commercial finance companies and factors do not normally "set a company up in business" if it has a serious lack of ownership capital. The funds supplied, however, may facilitate expansion of small businesses with limited capital. The financing, usually extended under continuing arrangements, can in effect provide long-term credit to undercapitalized businesses if their receivables are sound, and the charges are within the capacity of small businesses to pay if they can grow profitably.

TABLE 10.—*Number of clients, volume, and outstandings of 30-company group, by kinds of commercials financing, 1954–56*

[Dollar amounts in millions]

Type of financing	Number of clients			Volume			Outstanding		
	1956	1955	1954	1956	1955	1954	1956	1955	1954
Accounts receivable, total	3,744	3,728	3,642	4,618	4,133	3,585	512	454	371
Loans on receivables	1,833	1,795	1,757	2,131	1,899	1,660	202	176	147
Factored receivables	1,911	1,933	1,885	2,487	2,234	1,925	310	278	224
Equipment financing	3,694	3,310	3,084	329	213	180	314	211	164
Other financing:									
Inventory financing	456	335	320	136	135	184	46	42	38
Rediscounts	220	198	194	130	121	109	76	66	54
All other	1,481	1,404	1,143	121	113	83	70	60	44
Total	9,595	8,975	8,383	5,334	4,715	4,141	1,018	833	671
	Ratios (1954=100)								
Accounts receivable, total	102.8	102.3	100	128.8	115.3	100	138.0	122.4	100
Loans on receivables	104.3	102.2	100	128.4	114.4	100	137.3	119.7	100
Factored receivables	101.4	102.4	100	129.2	116.1	100	138.4	124.1	100
Equipment financing	119.8	107.3	100	182.8	118.3	100	191.5	128.7	100
Inventory financing	142.5	104.7	100	73.9	73.4	100	121.1	110.0	100
Rediscounts	113.4	100.5	100	119.3	110.9	100	140.7	122.2	100
Other	129.6	122.8	100	145.8	136.1	100	159.1	136.4	100
Total	114.5	107.1	100	128.8	113.9	100	151.7	124.1	100

NOTE.—For explanation of the terms "clients," "volume," and "outstandings," see footnotes to table 1.

Changes in volume and outstandings, 1954–56

The 30 finance companies and factors reporting data for the entire 1954–56 period financed in the aggregate a larger volume in 1956 than in 1954, as shown in table 10, and supplied a larger quantity of credit outstanding per dollar of sales invoices. Total financing volume of all kinds reported by the 30 companies increased by over 28 percent from 1954 to 1956, while outstandings increased more than 50 percent.[9]

The larger increase in total outstandings than in total volume reflected in part the relatively larger expansion of equipment financing which has a much longer maturity than open accounts receivable financing and therefore a smaller volume of new advances made in relation to outstandings. Equipment financing volume in 1956 was 82 percent, and year-end outstandings 91 percent, larger than in 1954.

The increase in financing reported by this identical group may understate somewhat the increase for the entire industry, because additional companies are reported to have entered the field since 1954, particularly those granting loans on receivables.

The number of commercial finance companies is said to have increased considerably in recent years. According to trade sources, early in 1958 there were approximately 400 commercial finance companies and factors, of which not more than 20 were old-line factors.

[9] The level of the aggregate is of limited significance partly because the data on volume and outstandings refer to the face amount of receivables assigned or purchased for accounts receivable and to the amount of credit extended and outstanding for equipment and other kinds of financing. Changes in the aggregate from year to year, however, are significant insofar as the percentage advanced has remained constant.

Several of the larger finance companies have branch offices in different cities, and others finance businesses located in an extensive area about their offices. The offices of the old-line factors are heavily concentrated in New York City.

For both receivables and equipment financing, the number of clients increased less from 1954 to 1956 than volume and outstandings, indicating increases in financing per client. While increased availability of financing for the smaller businesses is suggested by the declining share of total financing received by the largest clients, as shown in table 11, such proportions are not conclusive evidence of the degree of concentration in the larger clients. They do suggest, however, that financing services were available to the smaller clients at least as readily as to the larger clients during the 1954–56 period.

TABLE 11.—*Percentage of total financing provided to 5 largest clients of each company, 1954–56*

Type of financing	Volume			Outstandings		
	1956	1955	1954	1956	1955	1954
Loans on receivables	15.6	16.9	18.1	25.6	24.2	28.7
Factored receivables	18.0	18.7	19.1	16.4	18.1	18.8
Equipment financing	16.1	16.3	23.3	15.9	18.1	24.9

NOTE.—Number of companies reporting: Loans on receivables, 13; factored receivables, 7; equipment financing, 6.

Changes in turnover

Changes in the turnover of receivables are of particular interest in the survey because, coupled with changes in finance charges, they suggest relative changes in the net cost of financing to borrowers. Also, changes in turnover suggest the extent to which expansion of receivables financing reflects a shortage of funds or an increase in the demand of clients' customers.[10]

Where the turnover period is comparatively short, as in accounts receivable financing, even small changes are significant because sales are a large multiple of receivables.[11] The sales turnover period for loans on receivables shortened from 33 days in 1954 to 31 days in 1955, and then lengthened to 32 days in 1956, indicating that demand for clients' products, relative to their borrowings, accelerated in 1955 and decelerated in 1956 (table 12). Little if any slowing of customers' payments on their accounts was evident. Expansion of clients' sales kept pace with that in their borrowing over the period

[10] A change in the sales turnover ratio (the ratio of sales to receivables outstanding) for average accounts receivable may reflect either a change in the collection turnover ratio (the ratio of collections to receivables) or a change in the ratio of sales to collections, or both. An increase or decrease in the collection turnover ratio may be viewed as a measure of the net amount of financing supplied or absorbed over the period by clients' customers as a result of acceleration or deceleration of their payments. An increase or decrease in the ratio of sales to collections, on the other hand, may be viewed as a measure of the net contribution of the supply of financing to clients' sales. If both sales financed and collections are increasing as, for example, from 1954 to 1956 in the aggregate survey data, but sales are rising faster than collections, this indicates that relatively more funds to finance sales are being made available by finance companies and factors.

[11] A 5-percent decrease, for example, in the sales turnover period for typical loans on receivables, say from 33 to 31½ days, would account for an increase in clients' gross profits amounting to more than the entire cost of the financing, under the conditions that both the percentage advanced and the cost of sales are 80 percent of sales and that the finance rate is 12.5 percent. This follows because total finance charges then equal 10 percent (80 percent of 12.5 percent) of receivables, while the increase in gross profits equals 11 percent of receivables. The 11 percent is computed on the assumptions that gross profits are 20 percent of sales and that the ratio of sales to receivables increased 5 percent, or from 10.90 times to 11.45.

as a whole, although the sales expansion decelerated noticeably in 1956 compared with the accelerated pace of 1955.

TABLE 12.—*Average turnover periods in number of days, 1954–56* [1]

Item	Accounts receivable		Equipment financing [2]
	Loans on receivables	Factored receivables	
	Millions of dollars		
Average outstandings: [3]			
1956	189	294	263
1955	162	251	188
1954	148	214	164
Sales volume:			
1956	2,131	2,487	329
1955	1,899	2,234	213
1954	1,660	1,925	180
Collections: [4]			
1956	2,105	2,455	254
1955	1,870	2,180	189
1954	1,662	1,904	180
	Number of days		
Turnover periods:			
Based on sales:			
1956	32.4	43.1	292.0
1955	31.1	41.0	323.0
1954	32.6	40.6	332.4
Based on collections:			
1956	32.8	43.7	377.8
1955	31.6	42.0	362.3
1954	32.5	41.0	332.4

[1] Data are for 30-company group, computed by dividing 365 days by the ratio of sales or collections to outstandings.
[2] Extensions and outstandings of equipment financing represent the amount of credit rather than the face amounts of sales or receivables outstanding.
[3] Averages of the beginning and end of each year, with the averages for 1954 estimated from partial data.
[4] Collections are derived from sales or extensions and outstandings; they equal sales or extensions minus the increase in outstandings during the year.

Company reports of typical turnover periods for loans on receivables tended to confirm the evidence of the aggregate data; the typical, minimum, and maximum in late 1957 was substantially the same as in 1954.

For factoring, receivables outstanding increased faster than the sales financed in both 1955 and 1956, and the sales turnover period lengthened by 6 percent, from 41 days in 1954 to 43 days in 1956. Since the ratio of sales volume to collections remained unchanged, this experience apparently reflected a slowing of payments by debtors on their accounts outstanding rather than a deceleration of sales volume.

Available reports indicate that the typical turnover period lengthened from 1954 to late 1957 (reported by about half of the factors reporting this item). This lengthening was said to reflect both of slowing of payments on accounts by clients' customers and requests by clients to allow longer terms. It was observed that "the textile business has not been good, and some firms are having difficulty in paying their bills." Requests by clients for longer terms apparently reflected this difficulty of their customers in making payments, rather than a structural trend toward longer terms of payment in this field. While such lengthening of terms is subject to the factor's approval, it appears that in many cases he "has been forced to go along."

The turnover period on equipment financing shortened from 1954 to 1956, from 332 to 292 days, as measured by volume of credit extensions (table 12). Extensions expanded rapidly in relation to collections. The marked lengthening of the collection turnover period, as shown in the table, appears to reflect in part the normal long time-lag of collections behind extensions, for this type of financing, and, to a minor extent, a structural lengthening of maturities on equipment contracts, as some companies introduced payment plans with longer maximum maturities.

For equipment financing, several of the firms reported that typical maturities were longer in 1957 than in 1954, reflecting the introduction of longer maximum-maturity plans, with others reporting maturities unchanged. The majority of the companies reported that delinquencies were fewer than in 1954, or negligible, or unchanged. A few reported that more collection effort was required in late 1957.

Sources of funds

Available data for some of the larger finance companies engaged in commercial financing and factoring indicate that these companies as a group were able to increase the amount of borrowed funds, relative to capital funds, during the 1954–56 period of increasing monetary and credit restraint. These data do not provide a basis for observations on the smaller companies, or on individual companies, large or small.

Balance sheets are available for finance companies accounting for $170 million, or about half, of the 1954–56 increase in total outstandings reported by the survey group. These include 7 commercial finance companies (1 large and 6 medium size or small) which accounted for $70.5 million of the increase in outstandings, and 3 large sales finance companies whose commercial financing and factoring subsidiaries and divisions accounted for $99 million of the increase in outstandings.[12] Selected financial data for these two groups are shown in table 13.

[12] Data on the commercial financing and factoring operations of the subsidiaries and divisions of these sales finance companies have been included in the earlier sections of the report. However, funds obtained by the three large sales finance companies were applied mainly to sales financing, and somewhat different sources probably would have been used if funds had been applied mainly to commercial financing.

TABLE 13.—*Selected balance sheet and income data of commercial finance and sales finance companies, 1954–56*

Item	1956	1955	1954
7 COMMERCIAL FINANCE COMPANIES			
Ratio (percent) to total resources, Dec. 31:			
Commercial receivables (before reserves)	87.5	87.6	86.5
Short-term notes payable	39.8	43.8	44.6
Unsubordinated long-term debt	17.9	13.8	11.0
Subordinated long-term debt	6.8	6.4	5.7
Due customers	17.1	16.9	17.7
Capital and surplus	14.7	15.2	16.8
Total resources, Dec. 31 (in millions of dollars)	287.2	250.9	208.8
5 COMMERCIAL FINANCE COMPANIES [1]			
Ratio (percent) of net income to:			
Capital funds	12.2	12.3	11.6
Total resources	1.7	1.8	1.9
Total resources, Dec. 31 (in millions of dollars)	262.7	226.9	191.1
3 LARGE SALES FINANCE COMPANIES			
Ratio (percent) to total resources Dec. 31:			
Commercial receivables (before reserves)	8.9	8.2	9.9
Short-term notes payable	41.9	50.9	39.9
Unsubordinated long-term debt	27.9	21.2	24.1
Subordinated long-term debt	9.2	6.9	9.2
Due customers (including auto dealers)	3.8	3.9	4.8
Capital and surplus	12.9	12.4	16.1
Ratio (percent) net income to capital funds	15.0	15.8	17.2
Ratio (percent) net income to total resources	1.9	2.0	2.8
Total resources, Dec. 31 (in millions of dollars)	4,341	4,198	2,922

[1] Earnings data were not available for 2 of the smaller companies included in the sample of balance sheets.

The assets of the two groups, consisting mainly of receivables, were financed largely by borrowing. Total long- and short-term debt outstanding at the end of 1956 represented 79 percent of total resources for the sales finance companies and 65 percent for the commercial finance companies. The difference in total debt ratios reflected chiefly relatively smaller long-term debt of the commercial finance companies.

Both groups increased their total debt in relation to total resources from 1954 to 1956. The sales finance companies increased both short-term and long-term debt slightly, while the group of commercial finance companies expanded long-term debt considerably and reduced the percentage of short-term debt. The ratio of capital funds to total resources at the end of 1956 was moderately lower for the sales finance companies than for the commercial finance companies, 12.9 and 14.7 percent, respectively.

Including subordinated debt with capital funds as part of the borrowing base for senior debt, the borrowing ratios (ratios of senior debt to capital and subordinated debt) of the groups at the end of 1956 were nominally about the same, approximately 3.5. The effective ratio of borrowing from the markets for short- and long-term debt (excluding amounts due customers from debt) rose from 2.7 in 1954 to 2.9 in 1956 for the commercial finance sample and from 2.8 to 3.4 for the sales finance companies, indicating a relatively greater use over the period of borrowing by the sales finance group. The larger the ratio of borrowing to capital funds, the larger the earnings return on capital funds, other things being equal.

Changes in finance charges and earnings

While commercial finance companies and factors were able to expand their borrowing substantially from 1954 to 1956, cost of their borrowed funds increased as interest rates rose. Part of the increase in money and other costs was passed on to clients through some increase in finance charges; part was absorbed through increases in their borrowing ratios and, in some cases, through lower earnings returns on their capital funds.

Survey information on changes in finance charges is subject to important qualifications. They reflect reports of "typical" charges in effective interest per annum on outstanding balances in late 1957 and in 1954. For some kinds of financing, typical rates for the same companies in 1957 and 1954 cannot be compared on a representative basis. Even for the same finance companies, changes in the characteristics of clients between the two periods may limit comparability of rates. For instance, since rates tend to be lower for the larger clients, the substantial increase in volume and outstandings of the average client since 1954 might be expected to result in decreased average rates, other things being equal. Thus, a tendency to raise charges to meet a rise in money costs might be moderated in the case of some companies because of larger volume for clients generally.

Despite the qualifications, it is evident that finance rates increased from 1954 to 1957 (table 14). The median rate for loans on receivables, reported by the same 22 companies in both periods, increased from 13.3 to 14 percent. For factoring, the typical interest rate charged on funds advanced increased from 6 percent in 1954 to a range of 6 to 7.2 percent and an average of 6.7 percent in late 1957; firms raising the rate from 6 percent did so in the fall of 1957. The flat commission charged on factored receivables was increased from 1954 to 1957 by about half of the reporting firms. For the nonidentical sample of equipment financing, the median typical rate reported increased from 12.8 to 13.5 percent.

TABLE 14.—*Reported typical finance charges for selected kinds of financing, 1954 and late 1957*

Type of financing	Median		Arithmetic mean of typical charges	
	Late 1957	1954	Late 1957	1954
Loans on receivables [1]	14.0	13.3	12.4	11.7
Factoring:				
Interest charge [2]	6.0–7.2	6.0	6.7	6.0
Flat commission [3]	1.5	(4)	1.4	(4)
Equipment financing [5]	13.5	12.8	12.5	10.5

[1] Effective interest rates per annum on cash advanced, reported by the same 22 companies for both periods.
[2] Effective interest rates per annum on cash advanced; all factors giving typical rates reported 6 percent in 1954; in late 1957, the range of rates was from 6 to 7.2 percent, but data are inadequate for a significant median. The arithmetic mean (weighted by receivables outstanding) is for 7 of the old-line factors.
[3] Percentage based on receivables purchased, which is generally charged for assumption of credit risk and for collection and other services rather than for financing as such. The median charge in 1957 was for 10 old-line factors and the mean for 8 of these firms. No significant median or mean was available for 1954, but 4 of 8 old-line factors said their charge was lower in 1954 and the others said it was unchanged.
[4] Not available.
[5] Effective interest rate per annum on outstanding equipment contracts. The median is for 13 companies in 1957 and 6 companies in 1954; the mean applies to 10 companies in 1957 and 6 companies in 1954.

The principal reason advanced for the increases in finance charges was the higher cost of money. The prime bank rate, for example, which is the rate paid for bank loans by the larger finance companies, was increased from 3 percent in the greater part of 1954 to 4½ percent in August 1957. Market yields on industrial bonds, of a quality roughly comparable with issues of the larger finance companies, increased by more than one-third from the 1954 average to the peak in November 1957. In some instances an increase in finance charges was delayed until the fall of 1957. It was reported that the increase often applied initially to new clients or was subject to negotiation with existing clients.

One finance company commented that its average effective interest cost was 6.0 percent computed on the basis of the prime bank rate of 4½ percent and on assumed borrowing at 75 percent of bank lines, because it is required by banks to maintain compensating balances of 20 percent of lines in use and 15 percent of lines not in use.[13] The average interest cost, based on the same assumptions, would be 5.33 percent with the prime rate at 4 percent following its reduction in January 1958.

Since the increase in finance charges was delayed until 1957 in some cases, and tended to become effective only gradually for the average client, it appears from the information available that the increase in charges from 1954 to 1956 was small, especially for accounts receivable financing. On this basis, it appears that the advances on accounts receivable supplied by both factors and commercial finance companies became a little less profitable to borrowers in this period.[14]

For equipment financing it appears that the net profitability of this financing to borrowers (purchasers) was little changed during the period. While the data on equipment financing charges suggest a sizable increase in the average rate from 1954 to late 1957, the 12 percent increase in the volume turnover ratio of this financing from 1954 to 1956 probably tended to offset most if not all of the increase in charges.

A limited number of financial statements indicates that earnings of finance companies engaged in commercial financing and factoring decreased from 1954 to 1956 in relation to their total resources, suggesting that finance charges did not rise as fast as total costs during this period. The ratio of net income to total resources decreased from 1.9 percent in 1954 to 1.7 percent in 1956 for a group of 5 commercial finance companies and from 2.8 to 1.9 percent of 3 large sales finance companies. Earnings on capital funds of the two groups held up somewhat better than earnings on total resources because of the increase in borrowing ratios referred to in an earlier section (table 13).

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[13] This calculation might overstate the actual interest cost insofar as deposit balances are necessary without a borrowing arrangement.

[14] It should be noted that the decrease in the relative profitability of accounts receivable financing for the group of companies as a whole indicated in this period does not mean that this financing became unprofitable to borrowers. Assuming that clients' gross profit margins were unchanged at 20 percent of sales, it may be estimated from the aggregate data that the cost of credit advanced, as a percentage of gross profits on sales financed, increased from 2.9 percent in 1954 to 3.0 percent in 1956 for factoring (based on the 6 percent charge for advances), and from 4.2 percent in 1954 to 4.5 percent in 1956 for loans on receivables. Though the assumption of unchanged gross profit margins in this period may not be realistic, any changes in the margins presumably would reflect other factors than the cost of the financing as such.

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APPENDIX A

SURVEY DESIGN, COVERAGE, AND QUESTIONNAIRE

GENERAL DESIGN OF THE SURVEY

The survey was designed to obtain data and information on commercial financing and factoring activity and practices, with particular attention to the availability and cost of these types of financing to different kinds and sizes of businesses during the period of monetary and credit restraint from 1954–57. Representatives of the Federal Reserve System in November and December 1957 visited about 50 commercial finance companies and factors in 11 major cities from Boston to San Francisco. In each visit, an attempt was made to obtain (*a*) answers to a set of interview questions dealing with company financing practices, and (*b*) data on the company's volume of receivables assigned or purchased and outstanding, in total and for the five largest clients alone, for each year 1954–56 for each kind of financing engaged in. Copies of the interview questions and the data form are reproduced at the end of this appendix.

SAMPLE COVERAGE

The survey was not designed as a census of all the commercial finance and factoring institutions. It was intended to cover a major part of the total dollar volume of business handled and to obtain the views of officials well informed on practices of small as well as large companies. An attempt was made to cover as many as possible of the 20 largest financing institutions for which some indication of rank in size was available from trade sources and a widespread sample of smaller companies.[1]

Data on volume of business and/or outstandings were submitted by 46 companies for 1956 and by 30 companies for the full period 1954–56. Of those believed to rank in the first 20 in the industry, the reporting group included all but 3 institutions which in the aggregate are estimated to have accounted for less than 10 percent of the total volume reported by the cooperating group. Total volume and outstandings reported for 1956 by the 30-company continuous sample and the 46 companies are summarized in table 1, by kinds of financing. The grand total volume was $6.3 billion for all kinds of financing combined.

The total volume of receivables assigned or sold to all commercial finance companies and factors has been estimated by the National Commercial Finance Conference at $9.9 billion for 1956. This estimate includes $4.3 billion of factoring and $5.6 billion of "nonnotification" financing but excludes equipment financing by certain of the more active companies in that field. After a rough adjustment to include the equipment financing not covered, it appears that the total industry volume based on the estimate may have been a little more

[1] A principal source of trade information on ranking of the 20 largest companies was Theodore H. Sibert, Specialized Finance Industry Nears $40 Billion a Year Volume, The American Banker, October 23, 1957, pp. 8–10. Sample of smaller companies was selected from the membership of the board of directors of National Commercial Finance Conference, Inc., and from local sources in cities visited. For list of the association directors, see National Commercial Finance Conference, Inc., Proceedings of 13th Annual Convention of the Commercial Finance Industry (New York, October 28–29, 1957).

than $10 billion in 1956. The 46-institution group in the survey appears to represent at least three-fifths of this industry total.

While the proportion of the industry total covered by each kind of receivables financing cannot be determined exactly from available data, it appears that the survey data cover a large proportion of the equipment financing extended by commercial finance companies. The coverage for factoring appears to be at least three-fourth of the industry total and for loans on receivables it is perhaps two-fifths to one-half.

The list of financing institutions supplying information for the survey is as follows:

	Provided data used for—	
	1954–56	1956 only
Atlantic Corp., Boston	X	
Atlantic Acceptance Co., Lynn	X	
Lexington Corp., Boston		X
General Discount Corp., Boston	X	
CIT Corp., New York [1]	X	
CIT Rediscount Corp., New York [1]	X	
Commercial Factors Corp., New York [1]	X	
William Iselin & Co., New York [1]	X	
Meinhard & Co., Inc., New York [1]	X	
James Talcott, Inc., New York	X	
A. J. Armstrong Co., Inc., New York	X	
Amsterdam Overseas Corp., New York	X	
Fidelis Factors Corp., New York		X
Textile Banking Co., New York [2]	X	
Shapiro Bros., Factors Corp., New York		X
Mill Factors Corp., New York		X
Hubshman Factors Corp., New York	X	
John P. Maguire, Inc., New York	X	
Jones & Co., New York	X	
Fidelity American Financial Corp., Philadelphia		X
Factors Corporation of America, Philadelphia	X	
American Acceptance Corp., Philadelphia		X
Pennsylvaina Factors, Inc., Philadelphia	X	
Business Finance Corp., Philadelphia		X
Associates Investment Co., South Bend	X	
Walter E. Heller & Co., Chicago	X	
Merchants Acceptance Co., Chicago		X
Commercial Discounts Corp., Chicago		X
Rawleigh, Moses & Co., Inc., Chicago		X
Mercantile Discount Corp., Chicago	X	
The Iroquois Co., Chicago	X	
Sheldon Factors, Inc., Chicago		X
Civic Finance Co., Milwaukee		X
Minneapolis Securities Corp., Minneapolis	X	
Industrial Credit Co., St. Paul	X	
First Acceptance Corp., Minneapolis	X	
The Republic Acceptance Corp., Minneapolis	X	
Commercial Credit Co., Baltimore	X	
The Finance Company of America at Baltimore, Baltimore	X	
Atlas Factors, Los Angeles	X	
Industrial Factors, Los Angeles		X
Progress Factors, Los Angeles		X
Refinance Corp., Los Angeles		X
Security Factors, Los Angeles	X	
Reliance Factors, Los Angeles	X	
Donner Factors, San Francisco		X
Total number	30	16

[1] Subsidiary of CIT Financial Corp. (primarily a sales finance company).
[2] Subsidiary of Commercial Credit Co. (primarily a sales finance company).

APPENDIX A, TABLE 1.—*Total volume and outstandings of 30- and 46-company groups, 1956*

[Millions of dollars]

Kind of financing	Volume	Outstandings
Loans on receivables:		
30 companies	2,131	202
46 companies	2,398	225
Factoring:		
30 companies	2,487	310
46 companies	3,118	381
Equipment financing:		
30 companies	329	314
46 companies	332	318
Inventory financing:		
30 companies	136	46
46 companies	145	48
Rediscounts:		
30 companies	130	76
46 companies	134	78
Other commercial financing:		
30 companies	122	70
46 companies	134	73
Total:		
30 companies	5,335	1,018
46 companies	6,261	1,123

NOTE.—To list of financing institutions supplying information for the survey: Certain sales finance companies also engaged in commercial financing, including Bankers Commercial Corp., New York, and Union Investment Co., Detroit, contributed information to this survey but have been omitted from the above list because they are primarily engaged in sales financing. Some companies having the word "factors" in their titles are engaged in lending on accounts receivable rather than in purchasing accounts as do "old line factors," and some old line factors do not have this word in their titles.

ESTIMATING METHODS

A number of smaller commercial finance companies, mostly in the 16-company group not supplying continuous data, were unable to report the annual volume of financing of one kind or another, but did report the amount of receivable outstanding at the end of one or more years. For these companies, annual volume was estimated at the same ratio to outstanding as the total group for that kind of financing for that year. A similar procedure was used to estimate the number of clients of a few companies not reporting these. In a few cases, receivables outstanding reported net of balances due clients were adjusted to a face value basis from annual report data. The fiscal year ending nearest to December 31 has been placed on that date.

Commercial finance and factoring companies, 1954–56

Company.....
Name of official.....

	Loans on receivables (1)	Factoring (purchased receivables) (2)	Inventory financing (3)	Equipment financing (4)	Financing of exports and imports (5)	Rediscounts (6)	Other commercial financing (7)
1956							
A. Number of clients							
B. Total financing volume							
C. Total outstandings							
D. Financing volume of 5 largest clients							
E. Outstandings of 5 largest clients [1]							
1955							
A. Number of clients							
B. Total financing volume							
C. Total outstandings							
D. Financing volume of 5 largest clients							
E. Outstandings of 5 largest clients [1]							
1954							
A. Number of clients							
B. Total financing volume							
C. Total outstandings							
D. Financing volume of 5 largest clients							
E. Outstandings of 5 largest clients [1]							

[1] For factoring, if your records do not show year-end factoring outstandings of your 5 largest clients, estimate the approximate average outstandings during each year by dividing receivables purchased during the year by the client's receivables turnover rate in times per year. For example, if you purchased $600,000 of receivables from 1 of your 5 largest factoring clients in 1956 and the receivables were outstanding an average of 60 days (an annual turnover rate of 6 times) the average outstandings of that client in 1956 would be $100,000 ($600,000 divided by 6).

INSTRUCTIONS

Line A: Enter for each of your kinds of financing the total number of clients to whom you extended that kind of financing at each year-end, 1956, 1955, and 1954.

Line B: Enter for each of your kinds of financing the total volume of financing extended during each year, 1956, 1955, and 1954.

Line C: Enter for each kind of financing the total amount outstanding at the end of each year, 1956, 1955, and 1954.

Line D: Enter for each kind of financing each year the aggregate annual volume of financing extended to your 5 largest clients for that kind of financing.

Line E: Enter for each kind of financing each year the aggregate amount of year-end outstandings of your 5 largest clients for that kind of financing.

Questions for Interviews With Commercial Finance and Factoring Companies

Name or code number of finance company:
Address:
Name of official interviewed:

I. GENERAL

		Approximate proportion of total outstandings
A. What kinds of financing do you engage in?		
1. Loans on receivables		
2. Factoring (purchase of receivables)		
3. Inventory financing		
4. Equipment financing		
5. Financing of exports and imports		
6. Rediscounting		
7. Others (specify, such as real estate mortgage loans, capital loans, etc.)		

Loans on receivables

A. What kinds of business account for the bulk of your portfolio of loans on receivables? (Specify whether manufacturing, wholesale trade, retail trade, service or other, and the principal product in each case.)

B. What kinds of business usually do not qualify for receivables loans? Why is this?

C. What are the approximate minimum size qualifications that a client must have for a profitable receivables financing deal?

	Now	*In 1954*
1. Minimum annual sales		
2. Minimum volume of advances		
3. Minimum net worth		
4. Minimum total assets		

If the minimums have been changed since 1954, why is this?

D. Do you have other minimum requirements for borrowers to obtain receivables loans, such as—

1. Profitable earnings record	
2. Age of business	
3. Type of product	
4. Enabling State laws	
5. Others (specify)	

E. What is the range for your percentage of advances against receivables?

	Now	*1954*
1. Largest percentage		
2. Smallest percentage		
3. Typical percentage		

Does the typical percentage advance tend to increase with size of client?

F. What is the approximate range of turnover of receivables financed?

	Now	*1954*
1. Shortest turnover		
2. Longest turnover		
3. Typical turnover		

What are your policies with respect to lengthening of your client's receivables turnover?

G. What is the range of your effective finance rates (simple interest on outstanding balances)?

	Now	*1954*
1. Lowest rate		
2. Highest rate		
3. Typical rate		

Does your finance charge tend to decline as size of client increases?

H. Would you say that receivables financing is—

	Small business	*Large business*
1. Less available than in 1954		
2. More available than in 1954		
3. About as available as in 1954		

Why is this?

I. Have you any suggestions which might increase the availability or reduce the cost of small-business financing by loans on receivables?

Factoring

A. What kinds of business account for the bulk of your purchased receivables? (Specify whether manufacturing, wholesale trade, retail trade, service, or others, and product in each case.)

B. What kinds of business usually do not qualify for factoring?

Why is this?

C. What are the approximate minimum qualifications that a client must have for a profitable factoring deal?

	Now	*1954*
Minimum annual sales		
Minimum net worth		
Minimum total assets		

If changed, why is this?

D. Do you have other minimum requirements for clients to obtain factoring services, such as—

	Now	*1954*
1. Profitable earnings record		
2. Age of business		
3. Type of product		
4. Enabling State laws		
5. Others (specify)		

If changed, why is this?

E. What is the approximate range of turnover of receivables financed, in number of times per year?

	Now	*1954*
1. Shortest turnover		
2. Longest turnover		
3. Typical turnover		

F. What is the range of your factoring charges?

	Now		*In 1954*	
	Simple interest	*Flat charge*	*Simple interest*	*Flat charge*
1. Lowest rate				
2. Highest rate				
3. Typical rate				

Does the factoring charge tend to decline as the size of client increases?

G. Would you say that factoring is—

	Small business	*Large business*
1. Less available than in 1954		
2. More available than in 1954		
3. About as available as in 1954		

H. Have you any suggestions which might increase the availability or reduce the cost of factoring credit to small business?

Inventory financing

A. What kinds of business account for the bulk of your loans on inventories? (Specify whether manufacturing, wholesale trade, retail trade, or others, and the principal product in each case.)

B. What kinds of business usually do not qualify for inventory loans?

Why is this?

C. What are the approximate minimum size qualifications that a client must have for you to finance his inventories?

	Now	*1954*
1. Minimum annual sales		
2. Minimum inventories		
3. Minimum net worth		
4. Minimum total assets		

If the minimums have changed since 1954, why is this?

D. Do you have other minimum requirements for clients to obtain inventory loans, such as

1. Profitable earnings record	
2. Age of business	
3. Type of product	
4. Enabling State laws	
5. Must be financing client's receivables	
6. Others (specify)	

E. What is the range of your percentage of advances against inventories?

	Now	*In 1954*
1. Largest percentage		
2. Smallest percentage		
3. Typical percentage		

Does the typical percentage advance tend to increase with size of client?

F. What is the approximate range of turnover of inventories financed?

	Now	*In 1954*
1. Shortest turnover		
2. Longest turnover		
3. Typical turnover		

What are your policies with respect to curtailing inventory advances when a client's inventory turnover becomes slow?

G. What is the range of your effective finance rates for inventory financing?

	Now	*In 1954*
1. Lowest rate		
2. Highest rate		
3. Typical rate		

Does your finance charge tend to decline as the size of inventory financing client increases?

H. Would you say that inventory financing is—

	Small business	*Large business*
1. Less available than in 1954		
2. More available than in 1954		
3. About as available as in 1954		

Why is this?

I. Have you any suggestions which might increase the availability or reduce the cost of small-business inventory financing?

Equipment financing

A. What kinds of business account for the bulk of your equipment financing? (Specify whether manufacturing, wholesale trade, retail trade, service, or other, and product involved.)

B. What kinds of business or commodity usually do not qualify for equipment fianancing?

Why is this?

C. What are the approximate minimum qualifications that a client must have for a profitable equipment financing deal?

1. Minimum annual sales		
2. Minimum net worth		
3. Minimum total assets		
4. Minimum outstandings		

If minimums have changed, why is this?

D. Do you have other minimum requirements for equipment financing deals?

	Now	*In 1954*
1. Profitable earnings record		
2. Age of business		
3. Kind of equipment		
4. Others (specify)		

E. What are your effective finance charges for equipment financing?

	Now	*In 1954*
1. Highest rate		
2. Lowest rate		
3. Typical rate		

Does the typical finance charge tend to decrease as the size of client increases?

F. What is your maturity for equipment financing?

	Now	*In 1954*
1. Maximum maturity		
2. Typical maturity		

Is the life of the equipment the principal factor in determining your maximum maturity?

G. What are your policies with respect to the percentage of sale price you will finance?

H. What is your delinquency experience?

	Now	*In 1954*
Percentage of outstandings delinquent over 90 days		

I. Would you say that equipment financing is—

	Small business	*Large business*
1. Less available than in 1954		
2. More available than in 1954		
3. About as available as in 1954		

J. Have you any suggestions that might increase the availability or reduce the cost of equipment financing to small business?

Financing of exports and imports

A. What kinds of business account for the bulk of your outstanding export and import financing? (Specify whether manufacturing or distributing, and the principal product in each case.)

B. What kinds of foreign trade business usually do not qualify for financing? Why is this?

C. What are the approximate minimum size qualifications that a client must have for a profitable foreign trade financing deal?

	Now	*In 1954*
1. Minimum annual sales		
2. Minimum volume of paper		
3. Minimum net worth		
4. Minimum total assets		

D. Do you have other minimum requirements for clients to obtain foreign trade financing, such as

1. Profitable earnings record	
2. Age of business	
3. Type of product	
4. Others (specify)	

E. What is the range of your effective finance rates (simple interest per annum) for foreign trade financing?

	Now	*In 1954*
1. Lowest rate		
2. Highest rate		
3. Typical rate		

What are the principal factors determining the charge for this financing?
F. Would you say that foreign trade financing is—

	Small business	*Large business*
1. Less available than in 1954		
2. More available than in 1954		
3. About as available as in 1954		

Why is this?
G. Have you any suggestions which might increase the availability or reduce the cost of foreign trade financing to small business?

Appendix B

Credit Insurance [1]

There are two firms writing credit insurance policies in the United States. They are the American Credit Indemnity Company of New York, a subsidiary of Commercial Credit Co., and London Guarantee & Accident Co., of London, England. Two other companies went out of business during the 1929–32 depression.

Although credit insurance is little known or understood, it is not a new device. Both of the companies now active in the field began operations in the United States in the early 1890's. The London firm had been writing credit insurance in the British Isles since 1869.

In 1956, premiums totaled $8.2 million. Since the average premium is equal to about one-tenth of 1 percent of sales, total sales covered by credit insurance in that year would appear to have been over $8 billion.

Credit insurance is intended to protect business firms against abnormal bad-debt losses. In the great bulk of policies only those losses above a calculated primary loss are covered. The primary loss is considered a routine cost of doing business. It is determined on the basis of experience of a given firm or general experience in an industry. In the years 1949–52 average primary loss was about 0.15 percent of sales for all firms.

Most all policies contain a coinsurance feature which requires that the insured assume a portion of the loss claimed. This proportion is usually 10 to 20 percent of the amount of the loss. Coinsurance, of course, is intended to prevent reckless credit extensions.

Policies also provide for a maximum limit on the insurance company's liability. This clause has been used ever since 1922, after large losses were absorbed in the 1920–21 recession.

The American Credit Indemnity Co. (ACIC) offers nine different basic policies which can be modified by numerous riders, most of which liberalize coverage, and by other special features. Obviously individual policies can be tailored to fit the circumstances of particular clients, and the desires of businessmen as to type and extent of coverage.

Premiums on policies are determined by the extent of the coverage, the volume of sales (the ratio of premium to sales tends to decline as volume rises), the "policy amount" (maximum liability), and additional charges for riders. Premiums can be reduced if the insured agrees to a higher primary loss or a larger coinsurance proportion.

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[1] Prepared by George W. Cloos, Federal Reserve Bank of Chicago.

Premiums are also influenced by the industry classification of the insured (ACIC uses five categories depending on degree of risk) and the credit ratings of the client's customers. Individual accounts can be covered by name, but in most cases ratings of an agency, usually Dun & Bradstreet, are used. The poorer the Dun & Bradstreet rating the higher the premium, and the lower the maximum liability which the insurance company will assume. Premiums usually average between one-fifth and one-twentieth of 1 percent of sales.

Credit insurance is used by manufacturers, wholesalers, and some service lines (advertising agencies are mentioned particularly). Retailers are not considered suitable. Credit ratings for these would be too difficult or too expensive to obtain.

ACIC also provides a loss-prevention service which consists of advice on collection methods, and a collection service. Charges are made for collections following a 15-day "free period" which begins when the claim is referred to the company. Accounts which prove uncollectible because of insolvency are made good if they exceed the primary loss calculation. All remaining claims against the account are subrogated to the insurance company.

Obviously, credit insurance is of most interest to the smaller firm which can grow and take on new accounts with less apprehension about credit losses. Firms of this type are unlikely to have good credit departments or adequate collection facilities.

It is also suggested that commercial banks are more wiling to make loans collateralized by accounts receivable if these accounts are insured. This may also be true to some extent for commercial finance companies, though they have recourse on their clients for credit losses. Credit insurance appears inappropriate for clients of factors who perform this service themselves. One of the riders which may be attached to policies without charge gives the client's bank the right to file claims against the insurance company.

V. CREDIT FROM LARGE TO SMALL BUSINESS [1]

This inquiry into the flow of credit from large to small business attempts to determine (1) the extent to which such credit is a significant source of small business financing as well as a convenience arrangement, and (2) the effect of a period of monetary restraint on changing credit relationships between large and small concerns. It is striking that so little is known about trade and other credit extended by large to small business in view of the fact that it is acknowledged generally to be the largest and most important type of short-term credit to small business, and is also in some cases a substantial source of intermediate- and long-term funds. This appears to be true for new firms as well as for existing firms.[2] In absolute terms, the dollar amount of notes and accounts receivable of all nonfinancial corporations at the end of 1954 was $56 billion, while accounts payable totaled $33 billion. The difference, credit extended by these corporations to others, in large part to small unincorporated businesses and their customers, was $23 billion.[3] This volume grew exceptionally rapidly from 1954 through 1956, judging from data on United States manufacturing corporations or on very large corporations.[4]

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[1] Robert S. Einzig, assistant vice president, Federal Reserve Bank of San Francisco, prepared this report and, with other members of the committee for part II, planned the survey. System staff associated with him in arranging for interviews and reporting the results are as follows:

Federal Reserve Bank of Boston, Paul S. Anderson, assistant financial economist, and Russell V. Chisholm, assistant financial statistician; Federal Reserve Bank of New York, Richard S. Dosik, economist, Henry Kaufman, economist, Lawrence S. Ritter, economist; Federal Reserve Bank of Philadelphia, Joseph B. Everman, assistant credit investigator; Federal Reserve Bank of Cleveland, James E. Wert, senior economist; Federal Reserve Bank of Richmond, R. Pierce Lumpkin, senior economist; Federal Reserve Bank of Atlanta, Leon T. Kendall, trade economist, Philip M. Webster, industrial economist; Federal Reserve Bank of Chicago, George W. Cloos, senior economist, Paul Junk, junior economist; Federal Reserve Bank of St. Louis, Delbert C. Hastings, manager, research department, David T. Lapkin, economist, A. James Meigs, economist; Federal Reserve Bank of Minneapolis, Oscar F. Litterer, business economist; Federal Reserve Bank of Kansas City, D. R. Cawthorne, financial economist, Lyle E. Gramley, financial economist; Federal Reserve Bank of Dallas, P. E. Coldwell, director of research; Federal Reserve Bank of San Francisco, Donald A. Neuman, associate economist, Charles Peterson, administrative head, research department, Harry S. Schwartz, senior economist.

Robert S. Einzig, bachelor of arts degree, Wayne University, 1942; master of arts and doctor of philosophy degrees, University of Michigan, 1949, 1953. Instructor in economics, Wayne University, 1946–47, and University of Michigan, 1948–52. Consulting economist to industry, mainly engineering firm clients, 1947–52. Financial economist, Federal Reserve Bank of San Francisco, 1952–56, and assistant vice president, Federal Reserve Bank of San Francisco, 1956 to date. Instructor, seminar in problems of bank management, University of California extension, 1956 to date.

[2] "Credit granted directly through suppliers plays an important role in the financing of almost every type of small business. * * * Although some studies have shown that supplier credit is only 10 to 20 percent of the total of the initial investment, it is undoubtedly much higher for a going concern. Our own analysis of the statistics of income for 1953, published by the Internal Revenue Service, shows that, for the smallest manufacturing companies, credit granted chiefly by suppliers in the form of accounts and notes payable are 32 percent of the total assets of such companies." Testimony of Wendell Barnes, Administrator, Small Business Administration. See U. S. Congress. House. Select Committee on Small Business, Problems of Small-Business Finance, Hearings, 85th Cong., 1st sess., 1957, p. 223.

[3] U. S. Internal Revenue Service, Statistics of Income for 1954, pt. II.

[4] Data on manufacturing corporations are summarized in Trade Credit: A Factor in the Rationing of Capital, Federal Reserve Bank of Kansas City, Monthly Review, June 1957. In view of its discussion of quantitative information, this article is reprinted as appendix B.

Of the companies listed in Directory of the 500 Largest Industrial Corporations, Fortune, July 1957 (a special insert), a sample of every fifth company reveals an increase from 1954 through 1956 of 26 percent in sales, 47 percent in receivables, and 32 percent in payables.

The lack of reliable current statistics on the volume of credit extended by business precluded a quantitative approach to the problem. As a result, it was decided to examine the question through the interview technique. Since we were concerned only with the extension of credit by large to small concerns, and not by large to large or small to large, our sample was drawn from large firms in those industries in which receivables relative to sales were most important. Executives in the selected concerns were knowledgable extenders of business credit who reported not only the practices of their own concerns but also those of others in the industry. About 275 large concerns in all sections of the United States were contacted by personnel of the 12 Reserve banks. The resulting interview pattern is described in the appendix A.

In addition to the accumulation of basic institutional information on relationships that give rise to credit extensions from large firms to small ones, information was sought bearing upon a number of specific issues. Although each of these questions is elaborated in the body of this report, it may be helpful to set them forth brifly here: Is most interbusiness credit merely of a convenience or in-transit type; or does a significant volume of it also serve to meet the financing needs of small business for inventory and perhaps working capital, equipment, and plant? Has the recent period of restricted credit availability and rising interest cost accelerated certain structural changes which have been occurring in distribution for some time, such as the closer integration of distribution with manufacturing, or the establishment of financing affiliates? Apart from these structural questions, how have small businesses fared in the recent period of credit restraint from the point of view of the availability of credit from their suppliers? Has, for example, the credit extended by large firms to small business increased as other types of credit became less readily available?

A number of limitations should be kept in mind in reading the following discussion of these issues. First, our interviews were able to cover only a limited sample of mining and manufacturing concerns, and barely touched the very large volume of interbusiness credit extended in the wholesaling field. Second, we interviewed suppliers and not receivers of interbusiness credit. Finally, and perhaps most importantly, this kind of analysis of qualitative information is always subject to question in that the unusual may be given more weight than it deserves because there is no satisfactory way of quantitatively weighting responses.

Nearly all of the concerns surveyed have dealings which include a significant number of small firms as their customers, but less than half of them have more than a very limited contact with small businesses as their suppliers. Credit extended is therefore concentrated in the customer category. Every industry is on record as extending open-book or accounts receivable credit, and furthermore distributors of most of the products of these industries also extend such credit to smaller customers. Less than half of our respondents, however, extend other kinds of credit to their smaller customers, and even fewer extend financial advice. Concerns extending any form of credit to their smaller suppliers as contrasted with their small customers, constituted less than 1 out of 5 of the concerns interviewed, and this credit

is very limited in amount; and very few extend financial or other advice to these suppliers.

Few respondents were able to provide detailed statistical information on credit by type of customer. Fragmentary data are available, however, which permit some judgments to be drawn. In addition, there were a number of references to sources of statistical information on mercantile credit. However, such data generally cover only limited geographic areas, such as the records maintained by local credit associations, or are restricted to highly specialized lines of business.

While any division among the types of credit extended by large business to small is artificial, in that the different types shade into each other and are thought to be mere extensions of each other by the business extending the credit, some such division is necessary for simplicity of presentation and analytical discussion. When, for example, open-book or accounts-receivable credit becomes overdue it is a fairly common practice, after preliminary attempts to collect and other negotiations, to substitute a note. The maturity of these instruments and their superior legal status distinguish them from open-book credit; but they are obvious outgrowths of the latter. On the other hand, some products are sold on note terms from the beginning. Thus, while a line between these forms of credit may be arbitrary, it is useful to distinguish between such different kinds of credit. Similarly, to place their goods in new areas or to introduce new products, it may be necessary to supply a complete stock of goods on fairly long terms, or, in some cases, to make loans to customers to purchase buildings or equipment or to supply them directly.

CREDIT EXTENDED BY LARGE BUSINESS TO SMALL CUSTOMERS

Open-book credit

By far the most common and most important form of credit extended by business is incidental to the process of selling products. This form, designated "open book" or "accounts receivable" credit, arises because the practice of billing for the product shipped to a customer permits a certain number of days as a maximum for payment. It usually also gives the customer the option of taking some discount for prompter payment. There are two general exceptions to this procedure. Some products are sold under terms requiring payment within a specified time period, but no discount is permitted. Other products are sold on terms such that the account is considered overdue if the discount is not taken in a specified number of days. The latter is a trade discount as distinct from a cash discount.

All respondents indicated that open-book credit is extended to their customers, irrespective of the size of the order, with only few exceptions. In some cases a minimum weight or dollar amount per order or delivery is required, but the amount is so low that most small businesses would qualify. For example, among companies selling building materials, some require at least truckload lots, while others require orders of from $500 to $1,000 to merit credit. In only two cases was a minimum net worth or volume of business suggested as a requirement. In one case a minimum worth of $10,000 was generally desired, although exceptions were made. In the other the volume of business had to be enough to promise to be profitable to

the supplier: a grain mill required that a turkey raiser have at least 500 turkeys in process to qualify for feed credit.

All customers encounter some screening before credit is granted to them. The usual phrase employed in the trade is that credit is extended to all customers who are creditworthy. This means, among other things, that credit standards applied to customers stress the soundness of their financial structure, reasonably prompt payment practices, and generally satisfactory credit experience. In judging customers by these standards, suppliers rely upon such factors as various rating services, trade checkings, analysis of customers' financial statements, personal contact, and customer-bank relationship. In addition to the general rating services such as Dun & Bradstreet, there are specialized rating services in the lumber, plumbing, furniture, and other trades. Local interchange bureaus also render useful assistance.

While some concerns report using certain operational rules of thumb to determine the amount of credit normally available to particular customers; for example, relating it to the customer's credit rating or to his current assets-current liabilities ratio—all stress that their credit practices are tailored to fit the individual customer and that their own payment experience with a particular customer is often the most important factor in determining the extent of his creditworthiness. A few concerns are also interested in and require approval of store layout before entering into a distributor relationship and extending credit. On the other hand, some concerns indicate that the credit analysis verdict is entirely disregarded if the outlet is badly needed for sales purposes. The concerns interviewed all extend credit to new customers or new firms, but in general check more closely and restrict the amount of credit granted until some experience has been gained with the customer.

Maturity permitted.—Since our survey covered a wide range of mining and manufacturing industries, from raw materials to finished products and from perishable goods to durable producer equipment, the range of terms encountered was necessarily wide. For open-book credit, however, 30 days appears to be a typical maturity, although terms of 60 days or slightly more exist in the furniture, shoe, floor covering, and stone industries. There is no particular consistency in the maturity quoted—in the sense of its varying consistently as between consumer nondurables and durables or other such classifications—but instead it appears related in a loose way to the inventory turnover of the buyer. Terms are also undoubtedly subject to traditional practices which in the past may have had some direct relationship to the durability of the product or time required for final sale but which are now obscure. Thus, meat is sold generally on about 1-week maximum credit terms, and beer in some areas on 15- to 20-day terms, whereas terms of up to 60 days are in effect on sales of fluid milk in some areas.

Terms appear reasonably uniform as among the concerns in a particular industry and as among areas of the country. The most marked regional differences in maturities within industries are in industries operating under State regulation such as milk, beer, or liquor companies. For example, in some States beer can be sold only for cash on delivery while in others, such as California, distributors may be allowed 90 to 120 days for payment.

Discounts allowed.—The general pattern of requirement for prompt payment to obtain a discount is 10 or 15 days. There is also developing, however, a pattern of requiring payments by the 10th or 15th of the month following shipment of the order. There are some industries in which cash discounts are rare or nonexistent—the food and dairy industries, mining, and much of the equipment manufacturing industry, particularly where the equipment is relatively specialized and costly.

Discounts offered range from one-half of 1 percent for some products in the primary metals industry to 8 percent in the apparel industry, but the most frequent figure quoted is 2 percent. In any particular industry there may be considerable variation among terms for the various products which are sold, but these do not ordinarily vary as among customers, perhaps in recognition of the Robinson-Patman Act which requires uniform discounts to all customers within the same business classification. Large customers in some industries may obtain, in effect, a large discount if they have a particular large order, but in such a case the discount would tend to be in the price that is negotiated and not in the terms on which payment is made. That is not common, however, according to our respondents. Relatively few industries report distinctions in discounts offered jobbers or manufacturers as distinct from retailers or other final users of their products.

Variations from normal terms.—There are a variety of exceptions to formal terms quoted which vary in significance from one industry to another. The leading exception is seasonal dating plans. Nearly all industries which experience seasonal fluctuations in the demands for their products offer such arrangements, and the amounts of credit in these cases are large. In fact, in some industries most shipments carry seasonal dating terms. In sporting goods, for example, it was reported that goods shipped after December 1 could be paid for and the discount taken any time up to April 10; if shipped after June 1, the discount could be taken up to October 10; and if shipped between October 1 and December 1 the discount could be taken up to January 10. Similarly, blankets shipped from April to July can be paid for up to October 10 with a 2-percent discount, and if payment is made before that date, an anticipation discount at the rate of 6 percent a year is granted. Such seasonal terms are provided for paint ingredients, turkey feed, women's outerwear, shoes, photographic equipment, drugs, glass bottles, stationery, electric fans, and small appliances bicycles, heating and cooling equipment, construction materials, farm equipment, antifreeze, fuel oil, marine engines, and batteries, just to name a few products. Such seasonal credit extensions may provide from 3 to 6 months of credit. In addition, special promotions of particular products, as in the canning industry, or of new models in the television industry, command the same kind of dating plans.

Some concerns were careful to indicate that the availability of seasonal or other special promotional terms was of benefit to them as well as to their customers: For the manufacturer the warehousing problems is reduced, and for the distributor or retailer, increased sales may result from the greater availability of supplies. Such terms also appear necessary to permit year-round production of highly seasonal items, and one concern emphasized this point by indicating that such

terms were adopted only after signing a guaranteed annual wage contract.

The allowable credit period also varies occasionally for other than seasonal or special promotion reasons. If a dealer's stock is quite unbalanced, special terms may be offered so he may round out his inventory. Similarly, if a regular customer orders an amount which is much in excess of his usual order, extended terms may be granted. There is only a minor variation in credit maturity terms permitted because of location, with some recognition of the billing problem for customers at a great distance.

These regularly recurring variations from the usual quoted terms, connected with seasonal factors or special promotions, shade into others that develop because of unusual circumstances. Most such exceptions arise because of circumstances of the particular customer and his failure to pay within the quoted time. Attitudes toward these exceptions from usual terms vary from the strict view that they occur only rarely—e. g., when an otherwise creditworthy and values customer encounters temporary adversity—to the view that they occur whenever the customer needs more time. While extended terms are often granted to new firms and new customers, this is ordinarily done on the basis of a note, rather than on open-book credit. Similarly, temporary adversity encountered by a valued customer may be met by increased time allowances on subsequent shipments, but more often by notes covering his overdue accounts. Only a few respondents indicated selling on shorter terms to more marginal customers. Since it is clear from our interviews that sales are by far the overriding objective and that credit is a sales device, the statements that exceptions to normal terms are rare may also be due to the fear, voiced by some respondents, that exceptions here too might be interpreted as a violation of the Robinson-Patman Act.

There are also some other kinds of special circumstances relating to a whole class of customers rather than to a particular customer, which occasion departure from normal terms. The more important of these are to assist distributors during periods of marked price fluctuations, to assist classes of customers who themselves have large seasonal sales, or to meet changing competitive terms in the industry.

The treatment of exceptions that arise from overdue accounts throws considerable light on the effective credit terms in an industry. As might be expected, every respondent indicated that his course of action in treating overdue accounts depended upon the merits of the individual case. Cutting off further credit sales immediately is a rare occurrence, and many respondents indicated that this is done only as a last resort. However, concerns which had not set credit limits might do so for delinquent accounts. The cases unsettled after a series of letters requesting payment are usually handled by a personal visit to the customer by the salesman or credit manager. At one extreme, the seller may work out some mutually satisfactory arrangement which may take the form of a note. On the other, further credit sales may be stopped until the accounts are paid. A variation in this procedure is to make further sales on a cash basis only, with the customer paying slightly more than the quoted price and the difference going toward retirement of the past due account. It is nearly

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universal that if a good customer is involved whose circumstances are known to the company, and if it is felt that his problem is temporary, normal trading will continue and the time for payment on the amount outstanding will be extended. In cases where all efforts to continue a sales relation with the customer have failed, the account may be turned over to a collection agency.

Receivables and inventory turnover.—To determine how large a fraction of customers' needs for financing inventories is met by terms extended by suppliers, it would be necessary to compare the average number of days their merchandise is unsold with the average number of days allowed before the supplier requires payment. Such information is not consistently available for the turnover of accounts receivable of the large manufacturers and mining concerns interviewed nor for their inventory turnover of the small retailers or distributors who buy from them. Both of these kinds of information are available, however, for a sizable sample of medium-sized concerns in manufacturing, wholesaling, and retailing. The age of accounts receivable of these medium-sized concerns may be somewhat less than the age in large concerns, judging from the fragmentary data we have from our interviews, and the inventory turnover of the medium-sized firms may be greater than small firms would have reported.

Using these admittedly imperfect data, it is possible to make some comparisons between these various turnover rates for manufacturers, wholesalers, and retailers in corresponding industry groups. Such comparisons are quite rough, especially because wholesalers and retailers are ordinarily less specialized than manufacturers, i. e., wholesalers may purchase goods from more than one manufacturer and retailers from a number of wholesalers and, possibly, from a number of manufacturers as well. Nevertheless, such comparisons may indicate, in a very rough way, to what extent the manufacturer supplies inventory financing to his customers in connection with the goods he sells to them. He may be supplying them with additional working capital as well if his accounts receivable turn over in a longer number of days than inventories at stations further along in distribution channels.

A comparison of such turnovers reveals that in 9 of 20 industries for which data on manufacturers' receivables and retailers' inventories are available, less than one-half of retail inventory requirements are likely to be financed by credit from the manufacturers.[5] In eight others, manufacturers may be financing, to the extent that they make direct sales to retailers, from one-half to all of retail inventory needs. In three industries—dairy products, feed and salt, and automotive parts, trucks, and tractors—inventories at the retail level turned over more swiftly than manufacturers' receivables, so that the credit from manufacturers was apparently more than sufficient to finance the retailers' entire inventories of their products.

If we consider the relation between the wholesalers' accounts receivable turnover and the retailers' inventory turnover, we find that of the 22 industries for which data are available, 8 of the retail lines may be financed by wholesalers to the extent of one-half to all of their inventory financing needs. In four retail trades—dairy products,

[5] Compiled from Robert Morris Associates, 1956 Statement Studies (1957). It is also possible to obtain a similar comparison from Dun & Bradstreet records. (See Roy A. Foulke, Twenty-five Years of the 14 Important Ratios, Dun & Bradstreet, 1957.)

furs, coal, and the automotive parts, truck and tractor group—inventories may be completely financed by the wholesaler.

Turning to the relation between manufacturers' accounts receivable and the inventory turnover of wholesalers, of the 32 industries for which data are available, 20 wholesale lines may obtain from one-half to all of their inventory financing from manufacturers, 6 less than one-half, and 6 may obtain 100 percent or more. In the last category are dairy products, meats, tobacco, furs, paper specialties and books, and office supplies.

Summary: open-book credit.—It is clear, from our interviews and the fragments of data obtained, that a substantial part of the inventories carried by small businesses may be financed by the use of ordinary accounts receivable credit. In a few cases small businesses obtain enough credit from their suppliers to provide them with other working capital as well as to carry their inventories, and in the majority of cases they probably obtain a minimum of one-half of their inventory finance requirements. Furthermore, it is clear that small businesses with well-established relations with their suppliers can slow up their payments if they encounter temporary adversity, or if credit from other sources diminishes, without fearing that the supplier will cut off the flow of merchandise to them. They may also, of course, request extended credit terms on current orders. The fact that future datings of bills for seasonal and special promotions are becoming more widespread indicates that the volume of inventories financed by suppliers is increasing.

Other than open-book credit

Large suppliers can meet the needs of their smaller customers for relatively short-term credit by supplying other than open-book credit, and may thus meet some long-term needs as well. To consider the former first, to the extent that a supplier of items which are resold offers a plan for financing his customers' receivables, the short-term financing problem of small businesses which must themselves sell on credit is thereby lessened.

A minority of our respondents did such financing directly by buying the customers' installment notes or other accounts receivable. This direct receivables assistance is most highly developed in the petroleum industry where receivables are usually taken by the seller on gasoline sales to farmers, on bulk fuel-oil plant receivables, or on tires, and where the extension of credit via the use of credit cards is very substantial. A variation of this method, and one growing in importance, particularly in the machinery industry, is to offer the dealer extended terms if he sells products on rental or installment terms. Some companies have made arrangements with financial institutions, primarily commercial banks and finance companies, to finance the distribution of their products. Such arrangements take the form of various kinds of guaranties of the accounts receivable. A relatively new and growing variation of this is the use of a repurchase agreement between manufacturer and bank, covering the event of default.

Financing affiliates.—The leading development in recent years, however, is the avoidance of this direct contact with the financing of the distributor or dealer who handles the concern's products and the use instead of a financing affiliate. The best known such arrangement is in the automobile industry, although many of the other sales finance

organizations are also outgrowths of manufacturer interest in the availability of accounts receivable or other financing for their dealers. There is a large and growing number of special-function financing subsidiaries which, although concentrated in the hard goods field, from farm and other specialized equipment through automobiles and refrigerators to television sets, also include a substantial number of recently established subsidiaries handling such items as musical instruments, carpets, and draperies. While many of the subsidiaries originally borrowed their working funds from the parent company, most of them presently arrange the bulk of their financing independently. The reason for this, as given by several respondents, is their desire to keep the large volume of liabilities, arising from the carrying of receivables, from appearing on the parent company's books.

Subsidiary activities are by no means confined to financing receivables and, in fact, this is a minor part of the operation of many of them. Floor planning, or the financing of inventory in the hands of the dealer until it is sold, offered directly by the seller or through the subsidiary, acts to supplement any deficiency in the terms of credit otherwise available from the seller for financing inventories. Regular floor planning does not usually extend beyond 9 months, although seasonal renewals for unsold merchandise are not unknown, and the apparent intention of the floor plan credit maturity term is to achieve more precisely the intention often attributed to trade credit terms—to coincide with the date of sale. This time period is ordinarily much shorter than the maturities which will be accepted in connection with receivables covering the final sale of the product. The latter are reported to range up to 7 years on the heavier durable items, although the average appears closer to three.

Trade acceptances, notes, and other arrangements.—Another device for extending fairly short-term credit is the use of trade acceptances, in which the customer receiving the goods accepts a draft calling for payment to the seller on a specified date. These typically run 90 days and carry an effective interest rate of 5 to 6 percent. General practice is to use such trade acceptance credit in conjunction with the sale of the product but, because it is extended mainly to marginal firms or when the order is above the open-book credit limit of the customer, it is not very widely used. The only major exceptions are the fur and canning industries, which typically sell on trade acceptance terms. It is also on occasion used to replace past due accounts receivable, but it is much more common to replace such overdue accounts with notes.

Notes are used mainly as a collection instrument for overdue accounts. Respondents felt that they received a superior legal claim by obtaining the note and that it was also helpful to schedule definite payment dates. The typical period used is 90 days and the interest rate 5 or 6 percent. Notes also have the advantage that, after overdue accounts are transferred to notes, the customer may be permitted to take the discount on current shipments. However, neither trade acceptances nor notes represent more than a small percentage of the credit extended in open-book financing, because they are used mainly for slow payers or in very special circumstances.

Entirely apart from the financing arrangements that suppliers offer to their customers, suppliers may reduce the amount of funds that customers need to carry inventories by shipping goods to them on consignment or by holding inventories at widely scattered locations.

The former arrangement appears to be relatively rare according to our respondents. The latter, however, is very extensive with regional warehouses or distributorships carrying substantial supplies, and with manufacturing facilities becoming increasingly decentralized through establishment of branch plants.

Intermediate- and long-term credit.—As has already been indicated, some of the floor planning arrangements available in the distribution of the heavier durable goods may spill over, through renewal, into the intermediate-term category of from 1- to 5-year credits. In addition, some of the financing subsidiaries of manufacturers take a special interest in providing long-term funds for new business. In the shoe industry, for example, this is the principal function of one subsidiary which makes loans of up to 10 years to new retail establishments. The parent company in this case also makes loans to such establishments up to 50 percent of working capital for from 3 to 5 years. Similarly, a construction equipment subsidiary offers up to 5-year loans to dealers, an offer that is extensively used. Such arrangements are growing in importance and exist in a variety of other industries.

There is a wide variety of arrangements whereby suppliers help to provide the necessary plant and equipment for their customers. In the dairy products business, for example, such help is common in the provision of refrigeration equipment for customers. In one section of the country this takes the form of a "surcharge agreement" where a bank lends the retailer funds for refrigeration equipment and the dairy company collects surcharges on the customers' purchases and remits to the bank. No endorsement or guaranty is involved. In other States, suppliers may provide ice cream cabinets on 5-year terms, and dairies may supply the bulk of all fixtures for grocery markets taking their product.

Grain companies may provide bulk feed storage facilities for their customers, while sugar refiners may offer long-term loans for equipment to remove liquid sugar from tank cars and store it on the customers' premises. Some building supply manufacturers will lend to valued accounts to get a construction project underway, while others have mortgage departments which lend to builders and borrow from banks. In the appliance industry, if distributors are keenly desired, companies may provide from 50 to 70 percent of the capital needed; the amounts involved may range from $25,000 to $160,000, with repayment to be made over about 5 years. One appliance manufacturer will agree to buy back all merchandise not sold if a bank will finance its distributors. This particular arrangement is desired by the manufacturer since in that way neither loans nor contingent liabilities appear on the company's financial reports.

There are other isolated arrangements involving sales of equipment on fairly long terms, sometimes at cost, such as display fixtures in the stationery business or recapping equipment for rubber products. The furnishing of a complete array of credit, however, from accounts receivable through plant and equipment, reaches its most mature development where exclusive dealer relationships exist between very large companies and relatively small businesses. The petroleum refining and marketing industry, already mentioned in the discussion of short-term credit, is a prime example.

A wide variety of financing arrangements is used in this industry in order to increase sales. One petroleum company is willing to lend to

a retailer up to 75 percent of the total cost for land and a service station for a period of from 10 to 12 years at 5 or 6 percent. Another will advance 100 percent of the cost of tanks used by retail customers of distributors of liquefied petroleum, with a 5- to 7-year payoff and interest at 5 to 6 percent. Various attractive credit arrangements can be made if the company is assured that the operator is capable. If a company-owned station is leased, for example, the operator may sign a note for the movable equipment and obtain working capital under another note. Repayment may then be effected by charging him slightly more than the actual price on his petroleum purchases, the excess to be applied to debt reduction over a 3- to 5-year period. Or, the lessee may obtain funds to build a station by borrowing from a bank, using the company's lease as collateral or requesting the company to cosign the note.

In the automobile industry, where dealers are otherwise qualified but do not have funds, 75 or 80 percent of their entire capital may ordinarily be provided by the purchase of preferred stock under programs of the automobile manufacturers. Equipment and working capital may also be provided or arranged for. Profits are used to retire stock over a period of 5 to 7 years. This stock usually carries a dividend of about 6 percent, which is intended to give the dealer incentive to retire it. The number of dealers involved in such arrangement is substantial.

These financing arrangements are not limited to these two industries or to exclusive dealers. In the food and apparel industries, for example, there are similar purchases of preferred stock, without necessarily restricting the recipient of the capital to handle only one brand of merchandise.

Summary: other than open-book credit.—Extension of credit by large to small business in forms other than open-book accounts receivable is not as widespread as open-book credit but it is growing rapidly in importance. The growth of the purchase of customer paper and of floor planning has been most pronounced in the durable goods industries and has been accomplished mainly through financing affiliates of large companies. In both the durable and nondurable fields there has also been developing a closer relationship between supplier and dealer, particularly as the latter becomes franchised or otherwise exclusive.

This development may mean increased dependence of the customer on one supplier; but it apparently also means increased security in terms of credit availability, which may take the form of additional short-term credit, intermediate- or long-term credit, or even equity funds. The sensitivity of large business to the antitrust laws may cause such dependence, in the form of tightly linking acceptance of their credit to sole acceptance of their product, to have less effect on the adaptability of our business structure than it might otherwise have. Further, the probability is also high that it is only the more marginal firms which can be directed in this way; firms with demonstrably capable management can obtain their financing in other ways if this dependence on a supplier is repugnant or unprofitable. In addition, in the mutual interdependence between the supplier and his outlet, the latter's proximity to the final customer offsets part of the bargaining disadvantage which may flow from his smaller size.

Advice and other assistance to customers

In view of the importance attached by our respondents to management as one of the fundamental problems of small business, the assistance provided by large suppliers to small companies in managing their financial problems acquires added importance. Provision of such assistance is quite common. In some areas, where credit is restricted sharply by law, as is the case in liquor, beer, or milk in some States, the pressure of competition may take the form of provision of extensive help of this kind. Such assistance may not only include information as to where equipment may be purchased at lowest prices, introduction to banks and advice on accounting systems, but may also take the form of actually maintaining books and giving detailed management advice.

Comparative financial data for aggregates of similar firms are provided by more than half of all respondents, as is general financial advice. It is not uncommon to have full-time representatives visit customers offering management assistance, setting up budgets and accounting systems, and preparing statements and market analyses for use in borrowing from banks.

Credit extended by large business to small suppliers

Credit extended to small suppliers by large business is, in general, quite limited in amount and in variety. The only kind of credit consistently extended to suppliers is in the form of progress payments to construction firms and to subconstractors in connection with defense work. In one sense these practices may be said to involve little credit, since the supplier will already have made a proportional part of the outlay before any progress payments are received. The total volume of credit otherwise needed by small business, however, is thereby reduced.

There are some isolated traditional practices of supplying out-of-pocket costs to small suppliers of logs or supplying seed, insecticide, and costs of fertilizer to growers by the canning and sugar industries, but the volume of such extension is small. Some respondents also indicated that, under special circumstances, such as an urgent need for particular components or parts, materials might be supplied directly, machinery loaned or purchased, and other funds advanced. Such arrangements are, however, confined to special periods of high production and are relatively rare.

Aid to suppliers in managing their financial problems is also quite limited. Only in special circumstances do large companies give extensive advice to their small suppliers, and when this is done it is likely to be technical rather than financial advice. The interest of some large buyers of parts in the cost of producing them, however, has led a few firms to render more extensive assistance.

DEVELOPMENTS IN INTERBUSINESS CREDIT, 1954–57

The increased costs of borrowing between 1954 and 1957 and the decreased availability of funds, according to some observers, had a differential impact on small businesses. With funds less plentiful and costlier, the larger and better connected business borrower was said to be accommodated while small-business firms were reported not to have access to loanable funds even if they could afford the higher rates charged. A series of questions was put to our respondents in order to

throw some light upon changes in their credit terms and willingness to grant credit to their customers over this period.

Regarding changes in credit terms quoted, the interviews revealed no convincing evidence that they had varied materially over the period of increasing credit restraint from 1954 through 1957. Forces such as slower collections and rising business failure rates, which tended to make terms stricter, were balanced in most lines by increasing competitive pressures for sales, which tended to make both the quoted terms and the standards of credit-granting more lenient. Thus, the credit departments of large businesses became increasingly concerned over this time period as to the collectibility of credits, but the sales departments became more and more concerned about expanding or at least maintaining sales. To put it differently, greater awareness of increased risks in extending credit did not prevent some of them from being assumed. The interviews suggested, however, that new customers or newly established firms during this period may have encountered stricter standards, unless they were in areas where outlets were particularly desired.

While some concerns reported no changes in the formal credit terms quoted on sales, more respondents indicated that they were more tolerant in accepting departures in payment terms. Others characterized industry terms as having definitely declined in severity because of increased competition or excess capacity, and specific details on such easier terms were provided. No firm reported any tightening in formal terms quoted. There were, however, compensating variations reported. In construction, for example, the percentage of bonded construction jobs appears to have risen, which permitted suppliers of building materials to extend longer credits with less concern, and in other industries more firms insured their accounts. Notes were used more extensively either on direct sale or as a substitute for overdue accounts, and in these cases, or cases where equipment was sold by a manufacturer on an installment basis, interest rates charged by suppliers were considerably higher in 1957 than they were earlier.

Another reaction in the direction of extending more credit is the use of datings, whether for seasonal or special promotion purposes, which became longer and more widespread from 1954 to 1957. In addition, some respondents noted that credit lines were being more fully used by their customers. In a similar vein, more extended terms were introduced by some industries or, where they already existed, were used to a greater extent. Some concerns also publicized or promoted the use of trade acceptances, rather than their usual discount terms.

Among the respondents reporting a rise in the ratio of accounts receivable to sales or an increase in the average age of accounts receivable from 1954 to 1957, it was indicated that accounts receivable in the textile industry increased in age by 5 to 10 days over the last few years. Similar increases were reported by respondents in the dairy business, in petroleum, in apparel, in appliances, and in electrical machinery. These changes were said to have occurred mainly because of slowness in final sales of products in relation to inventories, increased use of installment selling, manufacturers' attempts to enter new markets or new parts of the country, and a general decline in business liquidity. But for the fact that some manufacturers substituted more notes for overdue accounts receivable, or increased their

use of leasing or rental arrangements, the ratio of accounts receivable to sales would have risen further. While some concerns indicated that most of this slowness occurred in the case of their smaller customers, a large number reported that it was general, with top quality customers not paying their bills until the last possible moment.

For industries like the manufacture of chemicals, cement, and television sets, the presence of a seller's market in the bloom period of business in early 1955 permitted manufacturers to be very restrictive in their credits and to have virtually a cash inflow from their willing purchasers. Some of these respondents regard the present situation of increased ratios of receivables to sales and of increased age of receivables as a return to normal. Other respondents in these industries have been dealing with relatively new products in which selling experience is slight. They regard the erosion of their terms as part of the evolution of appropriate sales terms, and do not view it with trepidation.

Apart from changes in the availability of open-book credit for longer periods, there have also been major changes in increased use of notes and trade acceptances in connection with sales in the first instance, rather than as mere substitutes for overdue accounts. More important, however, has been the financing by parent companies or financing affiliates of an increasing volume of dealers' inventories and receivables from their customers, through floor planning and purchase of paper.

The older financing affiliates increased the range of financing they offered over the 3-year period from 1954 to 1957. Whereas some of them had been established only to do floor planning, they began extending a variety of other forms of credit, mainly in the direction of financing customer paper. Moreover, a sizable number of financing subsidiaries were first established or were reactivated during this period. Most of these subsidiaries are in the consumer durable or producer durable goods fields, although the use of sales agencies which reduce the credit problems of textile mills has also grown. The activities of these subsidiaries are concentrated mainly in financing installment sales contracts, or in carrying leasing or rental arrangements. In addition, our respondents indicated that the furnishing of loans for working capital or equipment purposes by sellers and through their affiilates has expanded somewhat in recent years.

Leasing of industrial equipment

In addition to the increased use of leasing by manufacturers and their affiliates, there are specialized leasing companies which acquire equipment from different manufacturers to lease to their clients. These companies have substantially increased in number and volume of business in the last few years. Interviews were held with two firms, said to be typical in practices and clientele, one of which is reported to be the largest in the Nation.

Leases of industrial equipment may run from a minimum of 1 year to a maximum of 15, although a period of from 3 to 5 years is most common. Contracts are ordinarily renewable at greatly reduced annual rental rates because the lessor recovers the entire cost of the equipment during the initial period of the contract. The main advantage of leasing arrangements appears to be that they free working capital.

In addition, rental fees are currently deductible for tax purposes whereas payments made in purchasing equipment are not. Ultimately, however, there is no tax saving, since the initial cost of the equipment, if purchased, is eventually recoverable through depreciation.

One of the companies interviewed has been in business since 1952 while the other was founded in 1955. Both said that the value of business, measured either by contracted receivables or by the value of equipment owned, has tended to at least double each year. One firm follows the policy that each transaction must exceed $2,000 but that no client can enter into leasing arrangements that amount to more than 25 percent of his net worth. In addition, each client must have a net worth in excess of $100,000. Some 200 firms with net worth of less than $500,000 have been accommodated by this one firm, although they account for only 15 percent of the total cost of equipment leased. The other firm reports that 95 percent of its clients are small businesses and the only restrictions imposed are that each leasing contract must exceed $500 and the lessee must have a generally healthy balance sheet.

Although it was reported that many of the larger business clients could have obtained credit from some other source than leasing, it also appears that lenders are more willing to extend funds to the lessor, who, with a diversified portfolio and with some capital of his own, may be a better credit risk than the smaller lessees. The leasing company may be viewed as performing the function of obtaining credit in large lumps and then distributing it.

In addition to general leasing companies of this type, there are special purpose leasing concerns which handle such types of equipment as trucks and other automotive equipment, farm equipment, and metalworking machinery. The volume of business of these specialized concerns also is reported to be growing rapidly.

Attitudes on general credit developments

To turn now to the more general opinions expressed by respondents in this survey, relating to credit developments over the past few years, the majority reported more use of interbusiness credit. This increased use flowed from pressure for sales, although some resulted from maintaining relations with existing outlets which became increasingly slow in making payments, rather than from increased sales.

Most respondents indicated that their customers mentioned tight money, or other difficulty in obtaining credit from sources other than the respondent, more frequently in 1957 than in previous years as a reason for their need for interbusiness credit; and this was more commonly heard from smaller than larger customers. It was also generally agreed that this development influenced the degree of promptness with which smaller customers paid their bills, but was by no means the only reason for it. As a result of these payment difficulties of their customers, many respondents clearly visualized their own credit operations as serving to fill the gap resulting from their customers' inability to obtain credit from other sources.

As previously indicated, some firms quite deliberately extended terms to stimulate sales or were more liberal in their quoted terms, expanded their financial counseling services, established regional

warehouses to reduce customers' inventory requirements, or set up financing subsidiaries or expanded the activities of such subsidiaries. Most of the firms reluctantly went along with the slower payments which they received despite their more energetic bill collecting activities. The alternative in these cases would have been a reduction in sales, or at least in the rate of sales growth, and this consideration often overrode the caution about extending more credit because of concern about declining creditworthiness or the increased borrowing necessitated thereby.

CONCLUSION

Interbusiness credit is a highly flexible institution which has been adjusting to both long- and short-term developments. Among the longer run developments recently in progress is a closer relationship between manufacturing and distribution. This has reached its most mature development in the petroleum and automobile industries. It is probably fair to say that in these industries, most retailers have no credit problem other than selecting that source which offers least cost or least restrictions. A wider range of financing arrangements is also making its appearance in all of the durable goods industries, and in the field of consumer durables this may be regarded as part of the general trend of increasing consumption of such products and of their sale to final consumers on installment terms. In return for obtaining such credit arrangements, there may be some loss of independence on the part of small business.

Customary mercantile credit ordinarily appears to provide a substantial fraction of the credit needed by small dealers to finance their inventories. There is now a wider range of special arrangements which permit more liberal payment terms in the purchase of nondurable as well as durable goods. Variations from usual quoted terms have become more frequent over the past few years, with maturities tending more closely to match seasonal and other credit needs. Well-established small businesses have also been able to take advantage of open-book credit in periods of temporary adversity.

Other forms of credit are growing rapidly in importance—floor planning, accounts-receivable financing, loans for working capital, and other purposes—but only the short- and intermediate-term types are of quantitative significance. This growth in credit granting has occurred both directly by large companies and indirectly through financing affiliates. The industries in which the most extensive forms of business credit are offered, or departures from customary terms most readily accepted, are likely to be industries which are developing new products, or striving to enter new markets or new areas, or facing the most vigorous competitive conditions. The industries most dynamic in terms of sales and product development also appear most ingenious in devising methods of extending credit to their distributors in order to sell their products.

Developments in interbusiness credit over the past few years, when credit restraint was important, have been interwoven with the effects of the longer run developments described above and of cyclical developments as well. In the earlier phase of the boom, with sales rapidly expanding and business concerns and commercial banks highly liquid, buyers had little difficulty in meeting formal credit terms. Some large businesses took advantage of the situation to tighten up on the volume of credit extended and to reduce their marginal risks.

As the boom continued and credit restraints became more effective, the increase in sales moderated and business liquidity declined. In the latter stages of the boom it become more difficult to increase sales further, and liquidity generally had fallen to uncomfortable levels. At that time, the declining creditworthiness of some of their customers, a developing slowness in payments, and their own declining liquidity impelled the credit departments of many business firms to screen their customer credits more carefully; but the pressure to maintain sales was sufficient to cause an increase in the volume of credit granted and a growth of additional arrangements for financing customers. The influence of credit restraint cannot be disentangled from these more general business developments, but it probably contributed to the increase in demand for trade credit.

Thus, during the recent period of credit restraint, large business concerns provided a significant part of the credit their smaller customers had obtained from banks and other sources in earlier periods. Such provision of credit, of course, was not necessarily without higher cost or ancillary restrictions which the small businesses might have preferred to avoid; but this kind of friction must necessarily occur if monetary restraint is to have effect. If small business had been able to transfer from one source of funds to another with no added cost or inconvenience, it would have had a highly favored position vis-a-vis large business. From our analysis, it appears that the increase in credit granted by large business to small business over this time period was substantial. This offset part of the presumed advantage of large business in raising funds, even at higher cost, and offset some of the reported disadvantage of small business in its access to bank and other sources of credit.

Appendix A

Sample Composition and Questionnaire Form

The method of sample selection used in this report is described in the attached material. The first document, Background for Sample Selection, sets forth the general sampling method and is taken from a set of suggestions that was sent to each Federal Reserve bank. Table 1 on page 41 shows for each industry the Federal Reserve district or districts in which interviews were carried out. Each Reserve bank had considerable discretion in determining the firms to contact in its district, but the sampling procedure had been discussed earlier at a conference of Reserve bank staff members in order to assure the necessary degree of uniformity. The number of contacts actually made during the survey is shown in table 2 on page 43.

The basic questionnaire employed by all interviewers is also attached. (See p. 501.)

Background for Sample Selection

As a basic for objective selection of the lines of business which might be extending substantial amounts of credit to small business, reference was made to industry data on receivables and payables published in the Statistics of Income for 1953. All major (1-digit SIC)[1] industries reporting accounts and notes receivable equal to or more than one month's average sales were segregated (manufacturing, mining and quarrying). Within each of these categories, those industries (2-digit SIC) with an insignificant volume of fiscal year receipts (less than $150 million) were execluded. Among the remaining mining and manufacturing industries, groups (2-digit SIC) of primary and secondary interest were also identified. The standards for primary interest lines were (*a*) receivables equal to at least one month's average receipts, and (*b*) ratio of receivables to payables rising in direct proportion to size of firm (and from less than 100 percent in smallest size classes to more than 100 percent in highest classes).

To assure adequate coverage in all industries to be included in the survey, assignments were divided among the 12 Federal Reserve districts (see assignment table on pp 41–42) on the basis of (*a*) geographical concentration of industries and (*b*) equalization of the workload. In some cases where 2-digit industry classifications encompass rather sharply defined 3-digit classifications, e. g., food and kindred products, specific 3-digit assignments were made. In other industries, especially those of primary interest (as determined above), duplicating assignments were made to obtain more intensive coverage.

It should be stressed that the basic sampling unit is the industry rather than the firm. The principal contacts are to be large, knowledgeable businesses, and interviewers should remind themselves continually that they are searching for information that is relevant for the industry as well as the firm.

As for recommended procedure, it is suggested that 2 or 9 of the largest firms in each of the 3-digit SIC breaks assigned to a district be contacted by telephone. In many cases 1 firm can report on operations in 2 or more 3-digit SIC industries. The primary objective of these calls is to determine whether there is a significant amount of lending by large firms to small firms, other than the pure convenience type, in the industries in question. Such a determination should be possible after asking the questions in section I (pp. 44–45) of the questionnaire. This first part, appropriately completed, will also provide a record of telephone calls not followed up by personal interviews.

In those industries (three-digit classification) where lending by large firms to small ones is significant, several personal interviews should be completed using the questionnaire supplied by the subcommittee for this purpose. Enough firms—four or five may prove to be the most common "satisfactory" figure—should be contacted to enable the interviewers to write a fairly comprehensive report on trade credit practices in the industry in question.

If, after talking to several firms in a particular district, it is determined that important aspects of industry practices cannot be understood adequately from contacts in that district alone, the subcommittee should be requested to arrange for interviews in other districts.

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[1] In the Standard Industrial Classification (referred to here as SIC) the major categories of industrial activity, such as "manufacturing," are the 1-digit categories; the principal industries under each of these headings, such as "transportation equipment," are 2-digit categories; and the further subdivisions such as "aircraft and parts" are referred to as 3-digit categories.

TABLE 1.—*Industry coverage for survey, by Federal Reserve districts*

	Industry (SIC)[1]	District or districts
	MINING	
10	Metal mining:	
101	Iron ore	Minneapolis.
103	Lead and zinc ores	St. Louis.
105	Bauxite and other aluminum ores	St. Louis.
---	All other [2]	San Francisco.
12	Bituminous coal and lignite mining	Philadelphia.
13	Crude petroleum and natural gas	Dallas.
14	Mining and quarrying of nonmetallic minerals	Atlanta.
	MANUFACTURING	
20	Food and kindred products:	
201	Meat products	Kansas City.
202	Dairy products	Philadelphia.
203	Canning and preserving fruits, vegetables, and seafoods	San Francisco.
206	Sugar	Atlanta.
208	Beverage industries	Chicago.
---	All other [2]	Minneapolis.
21	Tobacco manufactures	Richmond.
22	Textile-mill products	Boston and Richmond.
23	Apparel and other finished products	New York.
24	Lumber and wood products, except furniture	San Francisco.
25	Furniture and fixtures	Richmond.
26	Paper and allied products	San Francisco.
27	Printing, publishing, and allied industries	Chicago and Kansas City.
28	Chemicals and allied products	Philadelphia, St. Louis, and Dallas.
29	Petroleum refining and related industries	Kansas City and Dallas.
30	Rubber and miscellaneous plastic products	Cleveland.
31	Leather and products	St. Louis.
32	Stone, clay and glass products:	
321	Flat glass	Cleveland.
322	Glass and glassware, pressed or blown	Cleveland.
---	All other [2]	Atlanta.
33	Primary metal industries	Cleveland.
34	Fabricated metal products	Chicago.
35	Machinery, except electrical:	
354	Metalworking machinery and equipment	Cleveland.
---	All other [2]	Chicago.
36	Electrical machinery, equipment, and supplies	Philadelphia, Chicago, and Minneapolis.
37	Transportation equipment:	
371	Motor vehicles and motor-vehicle equipment	Chicago.
372	Aircraft and parts	San Francisco.
---	All other [2]	New York.
38	Professional, scientific, and controlling instruments:	
386	Photographic equipment and supplies	New York.
---	All other [2]	Boston.
39	Miscellaneous manufacturing:	
391	Jewelry, silverware, and plated ware	Boston.
394	Toys, amusement, sporting and athletic goods	Chicago.
---	All other [2]	New York.

[1] See Bureau of the Budget, Standard Industrial Classification Manual (U. S. Government Printing Office, 1957).

[2] All other 3-digit groups were included in the assignment of this Federal Reserve district.

TABLE 2.—*Number of contacts in trade credit survey*[1]

[Tabulation by industry]

Industry[2]	Personal interview	Telephone contact only	Total contacts
Mining:			
Metal mining	1	4	5
Bituminous coal and lignite	3		3
Crude petroleum	13	1	14
Mining and quarrying of nonmetallic minerals	11	8	19
Manufacturing:			
Food and kindred products	25	7	32
Tobacco manufactures	1		1
Textile mill products	10	6	16
Apparel and other finished products	13		13
Lumber and wood products, except furniture	11		11
Furniture and fixtures	5	1	6
Paper and allied products	12		12
Printing, publishing, and allied industries	1	2	3
Chemicals and allied products	19		19
Petroleum refining and related industries	13		13
Rubber and miscellaneous plastics products	7		7
Leather and products	3		3
Stone, clay, and glass products	29	4	33
Primary metal industries	12		12
Fabricated metal products	11	1	12
Machinery, except electrical	23	1	24
Electrical machinery, equipment, and supplies	17		17
Transportation equipment	25	2	27
Professional, scientific, controlling instruments, etc	2	3	5
Miscellaneous manufacturing	11	2	13
Total	278	42	320

[1] When a single contact yielded information on more than 1 industry, that contact was counted more than once, i. e., as an interview in each industry on which information was obtained.

[2] See Bureau of the Budget, Standard Industrial Classification Manual (U. S. Government Printing Office, 1957) for complete industry title.

QUESTIONNAIRE USED BY INTERVIEWERS

Industry Classification
2-digit 3-digit

Name of Company:
Address:
Name of Official Interviewed:
Date: F. R. District:
Interviewer:

I. GENERAL INFORMATION

A. Do you deal with any kinds or classes of business which include a significant number of small firms:

1. As your customers?
2. As your suppliers?

B. (Ask if answer to I–A is "yes":)
Do you offer your smaller customers or suppliers financial assistance?

	Your smaller customers	*Your smaller suppliers*
Accounts receivable (or progress payments)?	(If yes, complete II–A.)	(If yes, complete II–D.)
Other kinds of credit?	(If yes, complete II–B.)	(If yes, complete II–E.)
Financial advice?	(If yes, complete II–C.)	(If yes, complete II–F.)

C. Is financial assistance in any form extended to small business:

1. By other manufacturers in your industry?
2. By distributors of your products?

D. (Ask if answer to IXC is "yes":)
Are there trade associations in your industry which could provide aggregative trade credit data for the past 3 years?

II. DETAILS OF CREDIT EXTENSIONS

A. Accounts receivable:
1. To whom do you extend trade credit?
   a. All customers?
      (1) Any minimum size cutoff?
      (2) Credit standards?
      (3) Other criteria?
   b. New customers?
   c. New firms?
   d. Has there been any change in the above since 1954?
2. Terms on which you typically extend credit:
   a. Payment required by when?
   b. What cash discounts given?
   c. What variation in discount terms by:
      (1) Product?
      (2) Customer?
      (3) Size of firm?
      (4) Size of order?
      (5) Degree of risk ?
      (6) Other?
      (7) Has there been any change in the above since 1954?
   d. Does the allowable credit period vary:
      (1) Seasonally?
      (2) With the turnover of the customer's inventory or receivables?
      (3) With the perishability of goods?
      (4) With the customer's location?
      (5) With the credit terms offered to ultimate customers?
      (6) With the credit terms available from your suppliers?
      (7) With the evaluation of creditworthiness and experience with particular customers?
      (8) With the size of the customer's business?
      (9) With the size of the customer's order?
      (10) For other reasons?
      (11) Has there been any changes in the above since 1954?
3. Has there been any change in your policy on maximum credit lines since 1954?
4. Do you ever extend trade credit beyond your normal terms?
   a. Frequently or rarely? Why?
   b. To any customers?
   c. Within what limits?
   d. On what terms?
   e. Has there been any change in any of the above since 1954?
5. What do you do if customers don't pay their bills on time?
   a. Cut off further sales?
   b. Carry them awhile? How long?
   c. Set credit limits?
   d. Others?
   e. Is there any difference as to size of business? Why?
   f. Has there been any change in any of the above since 1954?
6. Table attached (see page 51):
   a. Can quantitative data be supplied for Table I?
   b. Is it meaningful to compare changes in the ratio of outstanding receivables to sales for your company between 1954 and 1957? If the ratio changed, why did this happen?
   c. Did your definition of a delinquent account, and your follow up policies with respect to delinquencies, change between 1954 and 1957? If so, how do you explain the changes which occurred?

B. Credit extensions other than accounts receivable to customers:
1. Does your company have a sales finance subsidiary? (Note to Interviewer: If "yes," complete form entitled "Credit Extended by Finance Subsidiaries")

2. If your merchandise is sold for resale, do you offer a plan for financing your customer's receivables? If so, is this plan financed?
   a. By your company? How?
   b. By your sales finance subsidiary, if any?
   c. By an independent sales finance company?
   d. By some other technique?
   e. Do these plans differ as between large and small customers? Why?
   f. Has there been any change in any of the above since 1954?
3. Do you finance your customers in other than accounts receivable form?
   a. Shipments on consignment?
   b. Carrying inventories directly in regional warehouses or at distributorships in order to facilitate prompt delivery?
   c. Do you ever replace accounts receivable with trade acceptances? Why and on what terms?
   d. Do you ever substitute notes receivable for accounts receivable? Why and on what terms?
   e. Other arrangements?
   f. Has there been any change in any of the above since 1954?
4. Is credit extended in ways which are not tied directly to sales?
   a. Working capital loans?
   b. Plant or equipment loans?
   c. Endorsements of loans made to customers by financial institutions?
   d. Guarantee of contracts so that loans by other lenders are facilitated?
   e. Other arrangements?
   f. Do these arrangements differ as between large and small customers? Why?
   g. What department in your organization handles these arrangements?
   h. Has there been any change in any of the above since 1954?
5. Have any firms in your industry established financing subsidiaries in the past three years? Why?

C. Financial advice to customers:
1. Do you aid your customers in handling their financial problems by offering:
   (Note to Interviewer: When relevant, ask about policy changes since 1954.)
   a. Comparative financial data for aggregates of similar firms?
   b. Suggestions of, and/or introductions to, other potential credit sources?
   c. Advice on accounting systems?
   d. General financial advice?
   e. Other.

D. Progress payments to suppliers:
1. Are progress payments made only to particular types or classes of suppliers? If so, please elaborate.
2. When did you start making progress payments to suppliers? Why?
3. Are such payments made according to any prearranged schedule?
4. Are there any charges or special discounts associated with progress payments? If so, what are they?

E. Credit extended to suppliers:
1. Do you supplement the financial resources of your suppliers by:
   (Note to Interviewer: When relevant, ask about policy changes since 1954.)
   a. Extending working capital loans?
   b. Extending plant or equipment loans?
   c. Endorsement of loans made to customers by financial institutions?
   d. Guarantee of contracts so that loans by other lenders are facilitated?

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e. Other.
f. If you offer your suppliers financial assistance, how do your charges for this assistance compare with:
(1) Your credit cost?
(2) The credit cost of a typical supplier?

F. Financial advice to suppliers:
1. Do you aid your suppliers in handling their financial problems by offering:
(Note to Interviewer: When relevant, ask about changes since 1954.)
a. Comparative financial data for aggregates of similar firms?
b. Suggestions of, and/or introductions to, other potential credit sources?
c. Advice on accounting systems?
d. General financial advice?

III. RECENT CREDIT DEVELOPMENTS

A. Any changes during past 3 years in your willingness to give credit?
1. Because of pressure from sales department?
2. Because of greater doubts about creditworthiness of customers? If so, why?
3. Other reasons
4. Did this differ as between small and large business? Why?

B. Effects of tight money:
1. Any direct effects on your company?
2. Was your company turning its own payables more slowly in 1957 than in previous years?
3. Did the high cost of funds make you more reluctant to give credit?
4. Did your customers and suppliers mention tight money or difficulty in obtaining other credit? More often in 1957 than in previous years?
5. Did this appear to vary as between small and large customers or suppliers?
6. Did this seem to have influenced the promptness with which they paid their bills?
7. In general, how do you think tight money affected small business?
8. (If relevant) Did you make any special effort to meet the credit problem of small business by extending more credit yourself? Did this require more borrowing on your part?
9. What do you consider the main problems of small business?
10. What, if anything, should have been done to increase availability and reduce cost of credit to small business?

CREDIT EXTENDED BY FINANCE SUBSIDIARIES

A. When was your finance subsidiary organized?

B. Why was it organized?
1. To carry accounts receivable?
2. To make short-term loans to clients?
3. To make intermediate- or long-term loans to clients?
4. Other reasons?

C. How is the subsidiary financed, i. e., through the parent company or independently? Why?

D. What are the terms of credit extensions by the subsidiary?
1. Maturity?
2. Interest charge?

E. Additional comments (if any):

TABLE I.—*Trade credit data as of* ——————, *1954 and 1957*
(date)

Name of Company
Address
(See instructions on reverse side)

[Dollar amounts in thousands]

Customer break:	Number of customers		Sales 12 months ending in		Accounts receivable		Average age of accounts		Number of customers taking discounts		Number delinquent (past due)	
	1954	1957	1954	1957	1954	1957	1954	1957	1954	1957	1954	1957
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)

Please return to:
Research Department,
Federal Reserve Bank of ——————

INSTRUCTIONS FOR COMPLETION OF TABLE I

General

If all figures requested cannot be supplied, we shall appreciate receiving whatever are available. Do not discard the table simply because portions of the data cannot be provided. With these allowances, information is desired for as close to the same dates in late 1954 and 1957 as your records may permit.

Customer break

We are interested primarily in obtaining a customer break which, either directly or indirectly, tends to group businesses of greatly different sizes in different classifications. For example, textile manufacturers may categorize their accounts as follows: Large Metropolitan Accounts; Other Metropolitan Accounts; and Rural Area Accounts. Such a classification is quite appropriate for our use.

Number of customers

We are asking for the number of clients in each customer break for two reasons. First, this information, along with sales data, will give us some indication of the size of clients in each category. Second, a disproportional increase between 1954 and 1957 in the number of clients in any given category will affect the comparability of the data.

Sales

Note that we are requesting sales for a twelve-month period ending as of a specified date in 1954 and 1957. These data, plus receivables data, will enable us to compute sales-receivables ratios for 1954 and 1957 for each customer category for which figures are reported.

Accounts receivable

Indicate in the appropriate spaces the amount of open book credit due from each group of customers as of a given date in 1954 and 1957. If possible, exclude notes receivable and trade acceptances held. If such a distinction cannot be made, please indicate that the data supplied contain such items.

Discounts

If figures on the number of clients taking discounts are not available, substitute any alternative measure of discounting which your records may supply.

Delinquencies

If figures on the number of delinquent accounts are not available, substitute any alternative measure of delinquencies which your records may supply.

Appendix B

"Trade Credit: A Factor in the Rationing of Capital"

MONTHLY REVIEW OF THE KANSAS CITY FEDERAL RESERVE BANK

Limited supplies of capital and credit over the past 2 years in an environment of mounting requirements have aroused much interest to the identity of the potential borrowers whose demands have not been fully met. Analyses of the many and varied effects that have resulted from this condition have been focused largely on the rise of interest rates, the rationing actions of lenders (including banks and other financial intermediaries) in choosing to accommodate one demand rather than another, and the comparative accessibility of the capital markets to various types of borrowers. Large business units have been said to be exempted from direct credit rationing because of their financial strength, bargaining ability, and unrestricted access to the open market. Smaller units, lacking these advantages, have been described as being limited in their opportunities for growth and even as having suffered a reduction of the credit formerly available to them. This characterization of the credit-rationing process probably involves oversimplification for, in reality, a great many other conditions must be coinsidered to reach a balanced appraisal of the influence of restricted credit on various kinds of business.

The emphasis that has been given in the analysis to market access, the rationing actions of lenders in preferring one customer rather than another, and the restraining influence of higher interest costs is altogether appropriate. Another type of relationship, however, deserves consideration in the broad treatment of capital rationing. This relationship consists of the practice among business units and individuals of buying and selling on open book or charge account. For example, a business unit, finding it impossible to obtain additional credit through its usual sources, may supplement its capital by paying its bills less readily and by collecting from its customers more promptly than before. Obviously, such a practice could not yield additional credit for all units, since one can gain only at the expense of others. Yet the prevailing system of business relationships and trade practices makes it possible for some firms and some industries to gain capital in this way.

The foundation of trade credit is the structure of industry in which goods gain in value as they move from the raw material stage through the successive refinements of fabrication to the retail trade outlet and thence to the final consumer. Goods purchased by a business gain in value by the application of labor and capital. Thus, the individual business is likely to receive less credit through accounts payable owed to its suppliers than it extends through sales to its customers. But trade practices and the credit policies of specific firms and industries may alter this logical relationship. A business unit may receive more favorable credit terms from its suppliers than it grants to customers, and its accounts payable, therefore, may be higher than accounts receivable.

Interjection of trade credit into the discussion of the process of credit rationing raises a number of questions. First, is the volume of credit extended through this medium sufficiently large to be important in the allocation of available credit? Second, what are the broad groups which extend and receive credit in this form and what is their relative importance? Third, is trade credit sufficiently flexible to be a significant factor adding to the credit of some businesses during a period of credit restrictiveness? Fourth, do small firms gain or lose capital through trade credit? The ensuing discussion sets forth the available statistical information that applies to these questions.

THE MAGNITUDE OF TRADE CREDIT

The most comprehensive information on the amount of trade credit outstanding is supplied by the United States Treasury Department in the publication Statistics of Income. The data shown in the accompanying table exclude the reports of banks and other financial institutions, for their operations are not germane in this analysis. Since the figures are estimates for all corporations that submitted balance sheets with their tax returns, they exclude unincorporated business units, individuals, government units, and a few smaller corporations. Because the corporate form of organization is more typical of certain industries than of others, inferences cannot be drawn from these figures about the amounts of credit extended and received by specific industries. For example, unin-

corporated businesses are much more common in agriculture and retail trade than in manufacturing; therefore, a much larger share of their operations is omitted from the data shown.

Several aspects of these figures are of interest for the questions posed. These business units at the end of 1952 held notes and accounts receivable of $53.4 billion and owed accounts payable of $32.6 billion. This volume of accounts receivable was almost double the amount of loans to businesses held by all commercial banks on that date and was equal to 14 percent of the assets of the corporations. Since total notes and accounts receivable exceeded accounts payable by $20.8 billion, it is clear that a tremendous amount of credit was extended to others in the form of trade credit. The recipients of this credit can be assumed to be those economic units which are not included in the table, since credit extended and received in this form among corporations would be included in the receivables of one firm and the payables of another. It is noteworthy that in each industrial group shown the volume of trade credit extended exceeded the volume received.

TABLE 1.—*Receivables and payables, nonfinancial corporations*

[In millions of dollars]

Industry group	Notes and accounts receivable		Accounts payable	
	1951	1952	1951	1952
Agriculture, forestry, and fishing	371	260	335	197
Mining and quarrying	1,430	1,438	963	968
Construction	3,171	3,389	1,352	1,382
Manufacturing	24,493	27,414	14,685	16,210
Total trade	15,125	15,830	9,360	9,817
Wholesale	8,518	8,517	5,516	5,631
Retail	5,749	6,368	3,293	3,609
Miscellaneous	859	945	551	577
Service	1,176	1,284	859	890
Public utilities	3,591	3,741	2,876	3,098
Miscellaneous	79	71	40	34
Total	49,436	53,427	30,470	32,596

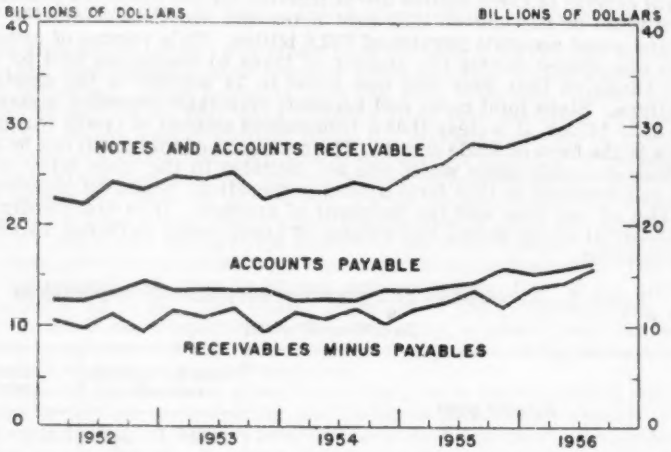
Source: Statistics of Income for 1952, pt. 2, U. S. Treasury Department.

These magnitudes clearly denote that trade credit is a factor of substantial importance in reallocating capital obtained from other sources by corporate business units. It is not possible to identify the recipients of these credits, but, as the figures pertain to almost all corporations, the sum was received by individuals, unincorporated businesses, and Government units. The last of these is unlikely to account for an important share because of the financing methods used by Government units. Estimates of the indebtedness of individuals on charge and service accounts also suggest that they did not receive an important part. Unincorporated businesses, which typically are small, appear to have received the major part of this credit.

FLEXIBILITY OF TRADE CREDIT

Although trade credit represents a tremendous sum, and therefore is potentially an important mechanism through which restrictions on credit may be reallocated, it does not necessarily follow that this credit is sufficiently flexible under restrictive conditions to afford assistance to hard-pressed businesses. In order to examine the responses of trade credit under recent money market conditions, it is necessary to turn to the evidence for manufacturing corporations alone. This choice is necessary because the estimates for all corporations by the Securities and Exchange Commission for recent years do not segregate other corporations from banks and finance companies and because no estimate is provided for trade payables alone. Estimates for manufacturing firms are prepared by the Federal Trade Commission and the Securities and Exchange Commission and published in the Quarterly Financial Report of Manufacturing Corporations. Revision of the sample in the second quarter of 1956 made it necessary to adjust the third-quarter estimate to preserve comparability with preceding years.

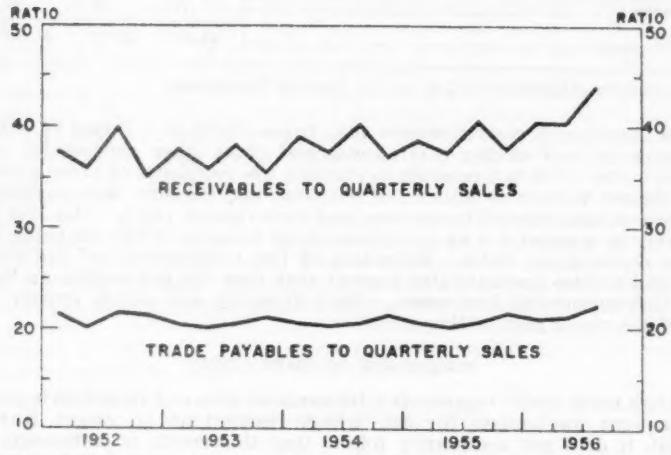
NOTES AND ACCOUNTS RECEIVABLE AND ACCOUNTS PAYABLE, U. S. MANUFACTURING CORPORATIONS 1952-56



Source: Quarterly Financial Report of Manufacturing Corporations, Federal Trade Commission and Securities and Exchange Commission.

Trade Credit

RATIOS OF RECEIVABLES AND ACCOUNTS PAYABLE TO SALES, U. S. MANUFACTURING CORPORATIONS 1952-56



Source: Quarterly Financial Report of Manufacturing Corporations, Federal Trade Commission and Securities and Exchange Commission.

The growth of notes and accounts receivable and accounts payable from the first quarter of 1952 to the third quarter of 1956 is shown in the accompanying chart. Since the expansion of total sales normally would lead to proportionate increases in trade credit, a second chart is shown in which receivables and payables outstanding at the end of each quarter are expressed as percentages of the volume of sales in the preceding quarter. Most of the irregularities in the second chart result from seasonal fluctuations of sales, although there also is a clearly defined seasonal movement in receivables that results from seasonal changes in sales.

From an examination of the first chart, it is evident that the growth of trade credit in the business expansion extending from the third quarter of 1954 to the third quarter of 1956 exceeded the rise in 1952–53—also a period of strong business expansion. Payables showed no perceptible increase in the earlier period but rose materially in the 1954–56 period. Yet, the rise in receivables exceeded the growth of payables so that the difference—net credit extended to others—increased from $11,799 million to $15,639 million. The difference of $3,840 million, representing the increase in net credit extended, was distinctly greater than the increase of $2,776 million which occurred in the bank debts of manufacturing corporations. Thus, while there is no reason to doubt that most of these firms had access to bank credit, it is equally evident that other firms benefited through improvement in the ability of manufacturers to carry larger volumes of receivables.

A part of the recent increase in notes and accounts receivable of manufacturing corporations clearly is attributable to the expansion of sales, as can be seen on the second chart where the receivables-sales ratio is plotted. Throughout the period shown, there is a slow upward drift in this ratio, but the rise from the third quarter of 1954 onward was more rapid than in preceding quarters. The actual increase in receivables in the 2 years was $7,442 million. If the ratio of receivables to sales had remained unchanged through the period, the increase would have been only $4,549 million. The difference—$2,893 million—was the result of the increase in the ratio from 40 percent in the third quarter of 1954 to 44 percent at the same point in 1956. This marked rise in the ratio coincided with the period of credit restrictiveness, tempting one to assume that the two developments were closely related. Other plausible explanations deserve consideration, however.

One possibility is that the shift of demand among industries from 1954 to 1956 led to more than proportionate increases in sales in the lines in which accounts receivable are usually high in relation to sales. Such shifts would have raised the ratio but would have furnished no basis for assuming that restrictive credit was an influence. The data for each type of manufacturing afford a basis for testing this hypothesis. The test consists of determining the ratio of receivables to sales that would have occurred in 1954 if the distribution of sales among the several lines had been the same as in 1956. That shifts of demand were of negligible significance is denoted by the fact that the ratio in 1954 is raised only from 40 to 40.6 percent. Conversion to dollar terms shows the shift in demand to have accounted for only $348 million of the total growth of receivables.

Another possible explanation of the rise in the ratio of receivables to sales is that manufacturing companies have found it profitable, both because of the rate of interest received and as a stimulant to sales, to set up financial arrangements under which equipment could be sold on the installment payment plan. Widespread establishment of such plans would materially affect the availability of credit for certain purposes, but it could not be taken uncritically as evidence of a response to a lack of credit availability from other sources. An alternative interpretation might be that some firms which could not have obtained credit from other sources, even under conditions of credit ease, are enabled by these arrangements to buy equipment.

The extent to which purchases of equipment under installment payment plans have spread among industries is not known. Information on specific companies confirms that the number of installment plans and the volume of sales financed by this method have increased over the past 2 years. Such plans as are known have been set up only in the durable-goods industries. Over the 2 years ending

with the third quarter of 1956, the ratio of receivables to sales in the durable-goods lines increased from 44 to 47.6 percent. In the non-durable-goods industries, the increase was from 36.3 to 40.5 percent—a somewhat larger rise than that in the industries in which the change in financing might have been important.

Neither the shift of demand nor the growth of installment finance seems to have been of major importance in producing the rise in the ratio of receivables to sales in the 2-year period. It therefore appears that restrictions on the availability of credit supplies from other sources led some firms to increase their use of trade credit.

The failure of the ratio to rise materially in 1952–53, under strong business conditions, may be explained by a number of differences between the two periods. On the basis of several measures, the earlier period can be judged to have involved less restrictive credit conditions and the period of tightness was much less prolonged. Business liquidity therefore was not reduced materially, as has been the case recently, nor did business capital investment either in plant and equipment or inventory in 1953 exhibit the marked growth that prevailed in 1954–56.

TRADE CREDIT AND CORPORATE SIZE

The distinct indication that trade credit responds to restrictive general credit conditions that are sufficiently prolonged and intense makes it particularly interesting to examine the evidence as to the size of business which extends and which obtains credit through trade relationships. Data from the Statistics of Income provide a classification by industry and asset size, but payables are not segregated into notes and accounts. Notes payable are primarily debts owed to banks and other lenders and thus trade payables cannot be isolated so as to determine the net volume of credit extended or received.

In interpreting the figures in the accompanying table, this deficiency may be overcome partly by recognizing that, in the smaller corporations, trade payables represent a larger, and bank debts a smaller, proportion of total payables than in the larger business units. This observation is founded on the evidence from manufacturing corporations, for which appropriate data are available, and on the large net extensions of trade credit that are made by larger firms to other businesses, most of which probably are small unincorporated concerns.

TABLE 2.—*Receivables as percentages of payables, nonfinancial corporations, 1952*

Asset size (in thousands of dollars)	Agriculture, forestry, and fishing	Mining and quarrying	Construction	Manufacturing	Public utilities	Trade	Services
Under 50	52	47	93	73	68	63	67
50 and less than 100	45	48	121	96	91	91	89
100 and less than 250	64	85	129	95	103	108	92
250 and less than 500	71	85	141	97	80	111	97
500 and less than 1,000	60	95	164	106	93	119	80
1,000 and less than 5,000	52	99	189	114	86	117	87
5,000 and less than 10,000	94	91	296	122	67	108	79
10,000 and less than 50,000	67	114	255	133	87	121	129
50,000 and less than 100,000	0	103	205	121	84	100	63
100,000 and over	224	143	0	121	95	109	99

NOTE.—Percentages of less than 100 indicate that total payables exceed total receivables.

Source: Statistics of Income for 1952, pt. 2, U. S. Treasury Department.

As the size of the unit increases, most of the industries shown in the table display a rise in receivables as a percentage of payables. (Percentages of less than 100 indicate that total payables exceed total receivables.) The progression as size increases is clearest in mining and manufacturing establishments. Construction firms are a special case, for their receivables appear to consist largely of uncompensated outlays on incomplete construction projects and therefore resemble the goods-in-process of manufacturing companies. Public utilities employ bank credit in financing construction until the completion of projects, and their excess of payables is a reflection of their construction activity rather than a measure of their gain through trade credit relationships.

The information for manufacturing during the 2-year period ending with the third quarter of 1956 allows a segregation of payables into trade and bank

sources on the basis of size of corporation. When trade receivables are compared with trade payables alone, only firms having less than $250,000 of assets are found to have payables in excess of receivables. During the 2-year interval, these corporations showed comparatively little increase in receivables or bank debt but a substantial gain in trade payables. Firms having less than $5 million of assets reported a gain in payables that was equal to 88 percent of the rise in notes and accounts receivable. Moderate increases in bank debt were a source of additional funds. Corporations having more than $5 million and less than $50 million of assets experienced a gain of trade payables that was equal to only about 23 percent of the rise in trade receivables and, while bank debt increased, the gain was well below that required to cover the difference. By far the largest share of the growth of receivables was in companies having more than $50 million of assets. Their gain in accounts payable was equal to about 40 percent of the growth of receivables, and although bank indebtedness increased, the gain was not large enough to cover the disparity.

In summary, the available evidence on trade credit in relation to size of corporation supports the view that smaller businesses gain an important amount of capital through trade relationships. If it is true that large manufacturing firms have comparatively little difficulty in obtaining bank credit, it is also evident that the amount they obtained in 1954–56 was insufficient to cover the expansion in trade credit.

CONCLUDING COMMENT

The preceding discussion shows that trade credit extended among firms in financing sales is large enough to justify the assumption that it is important in the reallocation of credit obtained through bank loans and sales of securities. The available evidence suggests that much of this credit is extended to unincorporated businesses which, by their nature, are probably small. The information on corporations confirms that smaller companies are the principal recipients. Such credit also was found to possess flexibility that could not be explained by the increase in the volume of sales, shifts in demand, or the growth of corporate installment credit, lending support to the conclusion that credit restriction played a part in the expansion of trade credit during the period from 1954 to 1956.

This conclusion does not necessarily lead to the further inference that small firms encounter little difficulty in financing under conditions of credit restriction. Little is known as to the terms on which larger credit supplies are made available through trade channels. Costs may be high, disadvantageous shifts in the product handled may be required, or other sacrifices may be necessary in order to gain credit through these channels. Moreover, there is no basis for judging how far trade credit can be expanded before the larger businesses become highly resistant to further increases. On the other hand,the existence of a network of business credit relationships of such magnitude and scope raises doubt about the effort to judge credit availability solely on the basis either of bank actions or access to capital markets. Moreover, it demonstrates the difficulties that might accompany any effort to improve the availability of capital for small businesses through direct restrictions upon larger firms, which have wide opportunities to alter their provision of capital through trade channels.

VI. LIFE-INSURANCE COMPANIES [1]

Life-insurance companies are not only one of the chief repositories of the Nation's savings, but are the leading institutional source of long-term debt financing of American business. Accordingly, it is important to evaluate their role in the financing of small business.

Funds received by life-insurance companies generally are placed in three kinds of investments—government securities (Federal, State and local), corporate bonds, and real estate mortgages. During the past 12 years life-insurance companies have sharply reduced their holdings of United States Government securities, acquired largely during the war, and invested the bulk of their funds in corporate bonds and mortgages. Long-term debt financing of business, as evidenced in the combined total of corporate bonds and business real estate mortgages, absorbed about three-fifths of the total net investment of life-insurance company funds in the 1945–57 period (table 1, sec. A). This represented more than half of the estimated net volume of all long-term debt financing of these types going to business in the postwar period (table 1, sec. B).

Information regularly available on loans and investments of life-insurance companies does not cover types of business borrowers or sizes of business loans. For the period 1953–56 such information was assembled through a recent special survey made by the Life Insurance Association of America (LIAA) of 67 companies with more than three-fourths of the assets held by all life companies.[2] The data available from this survey were supplemented by qualitative information obtained by Federal Reserve interviews of a few selected companies. The combined results of these inquiries provide the basis for the evaluation in this report of the nature and significance of life-insurance company lending to small business.

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[1] Saul B. Klaman, economist, Board of Governors of the Federal Reserve System, prepared this report and conducted the interviews for the survey.

Klaman, Saul B., bachelor of science, Massachusetts State, 1941, and master of arts, Michigan State, 1942. May 15, 1946–March 26, 1958, Board of Governors of the Federal Reserve System—economist; October 1943–March 1946, U. S. Navy (communications officer), rank of ensign and lieutenant (jg.); May 1943–October 1943, Bureau of Agricultural Economics, Division of Statistical and Historical Research (agricultural economic statistician); October 1942–February 1943, Office of Price Administration—junior price economist; and September 1941–September 1942, Michigan State College, department of economics—graduate assistant in economics. Leave of absence from Board of Governors—January 3, 1956–December 31, 1956, at National Bureau of Economic Research working on the Postwar Capital Market Study preparing an analysis of the mortgage market. Two research monographs approved by National Bureau of Economic Research for publication: "The Postwar Rise of Mortgage Companies"; "Mortgage Debt in the Postwar Decade: Appraisal and Development of Statistics"; also prepared research and statistical material for use in course "real estate finance" for business executives—to be given at MIT.

[2] For complete results of the LIAA survey, see U. S. Congress, House, Select Committee on Small Business, Problems of Small Business Financing, hearings, 85th Cong., 1st sess., November 1957, pt. I, pp. 142–170.

TABLE 1.—*Net investment of life-insurance companies in business securities and mortgages, 1945–57*

A. RELATIVE TO OTHER TYPES OF LIFE-INSURANCE COMPANY LOANS AND INVESTMENTS

Type of financing	Amount (billions of dollars)	Percentage distribution
Business securities and mortgages, total	35.8	60
Corporate bonds	30.5	51
Business mortgages	5.3	9
Other real estate mortgages	23.2	39
Government bonds:		
United States	−8.5	−14
State and local	1.3	2
All other	8.2	14
Total loans and investments	60.1	100

B. RELATIVE TO TOTAL NET FINANCING THROUGH BUSINESS SECURITIES AND MORTGAGES

Type of financing	Total net financing (billions of dollars)	Ratio, life-insurance company to total (percent)
Business securities and mortgages, total	64.1	56
Corporate bonds	46.7	65
Business mortgages	17.4	31

Source: Securities and Exchange Commission, Life Insurance Association of America, and Board of Governors of the Federal Reserve System.

Summary conclusions which emerge are:

(1) Small business financing by life-insurance companies is almost entirely long-term and done through the real estate mortgage instrument.

(2) Small business loans are a large proportion of the number but a relatively minor proportion of the amount of all business loans made by life-insurance companies.

(3) Lending to small business on mortgages, though maintained in large volume through the 1953–56 period, declined as a proportion of all life-insurance company business loans.

(4) Interest rates on long-term loans to small business are higher than to large business, but generally increased less between 1953 and 1956.

(5) The proceeds of small business mortgage loans are used mainly to finance construction and acquisition of real estate.

(6) Demands by small business for the long-term financing available from life-insurance companies may not be great.

REAL ESTATE MORTGAGES

In evaluating the significance of small-business financing through real estate mortgages, size of loan is a more useful criterion than asset size of borrower. Business mortgage lenders are typically much more concerned about the value of properties underlying loans and the expected income from rentals or business sales than they are with the assets of borrowers. Where the property being financed is to be under long-term lease, the credit rating and asset size of lessees is of much more importance in loan evaluation than is the asset size of the borrower. Reflecting these considerations, most life-insurance companies do not have readily available information on asset size of business mortgage borrowers. The LIAA survey obtained such information for only about one-third of the number of business mortgage loans reported.

Volume

Mortgage lending on the security of business and industrial properties is characterized by a large number of small loans. Of nearly 5,000 business mortgage loans authorized in 1956 by the 67 companies included in the LIAA survey, nearly 2,000, or about two-fifths, were in amounts of less than $50,000. In each of the 3 preceding years the number of loans of this size was about the same, but the proportion was progressively larger (table 2). Looking at mortgage loans up to $250,000, the bulk authorized ranged downward from 87 percent of total number in 1953 to 83 percent in 1956.

In terms of total amount of mortgage loans authorized on business-type properties in 1956, only 4 percent was in the under $50,000 size class and about one-fourth in the under $250,000 size class. Here again the proportion in the smallest size classes declined between 1953 and 1956.

Type of property and business

Underlying business mortgage loans are properties such as retail trade establishments, office buildings, manufacturing plants, hotels, and garages. By far the most numerous are retail trade establishments, which secured over two-fifths of the number of all business mortgage loans authorized in 1956. In importance it was followed by general office buildings and manufacturing plant, representing one-seventh and one-ninth, respectively. Because the average mortgage loan on office buildings is generally much larger than on retail facilities or manufacturing plant, office building loans represent a much larger proportion of the total amount than of the total number of business mortgage loans. Even so, they are still a smaller proportion than retail facilities.

TABLE 2.—*Distribution of number and amount of business mortgage loans of life-insurance companies, by size of loan*

[Percent]

Amount of loan (thousands of dollars)	1953	1954	1955	1956
	Number			
Under $50	48.6	44.0	41.8	39.1
$50 to $100	19.4	19.3	19.6	21.1
$100 to $250	19.4	20.7	21.7	22.4
$250 to $1,000	9.1	11.8	12.6	12.5
Over $1,000	3.5	4.2	4.3	4.9
All sizes	100.0	100.0	100.0	100.0
	Amount			
Under $50	6.4	4.7	4.2	3.9
$50 to $100	7.3	5.8	5.5	5.7
$100 to $250	15.6	13.6	13.8	13.5
$250 to $1,000	21.8	23.4	22.9	21.7
Over $1,000	48.9	52.5	53.6	55.2
All sizes	100.0	100.0	100.0	100.0

Source: Based on data from survey of 67 life-insurance companies by Life Insurance Association of America (LIAA).

The nature of underlying properties indicates that the main types of business-mortgage borrowers served by life-insurance companies are retailers, real-estate firms, and manufacturers. The classification of business size used in current Federal Reserve business-loan surveys defines small businesses in retailing and real estate, as those with assets of less than $50,000, and in manufacturing as those with assets of less than $1 million. Accordingly, if asset size were the criterion, mortgage lending to small business by life-insurance companies would be said to be mainly to those with assets under $50,000. For the reasons noted above, however, data on asset size of mortgage borrower, obtained in the LIAA survey and shown in table 3, are rather limited and likely to be not entirely representative. In interpreting them these factors should be borne in mind.

According to these data, only a small percentage of business-mortgage loans authorized by life-insurance companies was to borrowers having assets of under $50,000 or even under $100,000, and the relative number of loans in these categories declined substantially between 1953 and 1956. By contrast, a very large proportion of loans made were in amounts of less than $100,000 (table 2). These small loans were probably made to businesses with assets under $500,000. More than one-half of the number of business mortgage loans in 1956 were to borrowers with assets under $500,000. If one includes loans to borrowers with assets under $1 million, still considered as relatively small business in the manufacturing industry, then three-fourths of the total number, and one-third of the total amount of business-mortgage loans went to small business.

TABLE 3.—*Distribution of number and amount of business mortgage loans of life-insurance companies, by asset size of borrower*

[Percent]

Assets of obligor	1953	1954	1955	1956
	Number			
Under $50,000	7.3	7.5	5.3	5.2
$50,000 to $100,000	15.7	11.9	10.4	10.5
$100,000 to $500,000	35.2	41.7	40.5	38.1
$500,000 to $1,000,000	19.1	17.0	19.4	22.6
Over $1,000,000	22.7	21.9	24.4	23.6
All sizes	100.0	100.0	100.0	100.0
	Amount			
Under $50,000	1.3	1.6	0.8	1.4
$50,000 to $100,000	2.8	2.3	2.2	1.8
$100,000 to $500,000	16.6	16.2	12.7	12.9
$500,000 to $1,000,000	16.4	17.1	12.9	16.4
Over $1,000,000	62.9	62.8	71.4	67.5
All sizes	100.0	100.0	100.0	100.0

Source: Based on data from LIAA survey.

Use of mortgage funds

The greater part of borrowing on the security of commercial and industrial real estate is for the purpose of financing construction or purchase of property. Borrowing on industrial real-estate loans sometimes finances the purchase and installation of heavy equipment as well as the construction of special-purpose plant or facilities. Proceeds of mortgage loans are occasionally used for short-term purposes, including the financing of inventories and working capital, but such uses apparently represent a small proportion of mortgage loan funds. The life-insurance company executives interviewed were of the opinion that there had been no significant change between 1953 and 1957 in the proportion of business mortgage loans used for non-real-estate purposes. Accordingly, it seems reasonable to conclude that mortgage credit extended by life-insurance companies to small businesses was largely for financing of plant expansion, acquisition of machinery and equipment, and purchase of real estate. It has helped to satisfy a need for long-term credit which was not readily available from other external sources of funds for small business.

Loans to real-estate investors

A factor to consider in the financing of small business through business mortgages is the extent to which loans are made to real-estate investors rather than to business firms occupying the facilities financed. Evidence from interviews, while not conclusive, suggests that the bulk of all mortgage loans secured by industrial real estate is made directly to companies occupying, or intending to occupy, the facilities being financed. Such is not the case for commercial real-estate loans, however. A large proportion of these are made to real-estate investors engaged, full or part time, in constructing or purchasing property for occupancy by other business firms. Typical illustrations are shopping centers and office buildings.

The significance of business-mortgage loans to real-estate investors can be approximated by assuming, on the basis of interview informa-

tion, that this borrower group receives at least half of all loans secured by retail facilities, the bulk of all loans secured by office buildings, and a fraction of all industrial real-estate loans. On this basis and using LIAA data, it appears that between one-third and two-fifths of the number of business-mortgage loans in 1956 may have been to firms not directly occupying the facilities financed.

In connection with the extension of credit to large-scale real-estate investors, the financing of facilities occupied by small concerns that rent rather than own property can be considered indirect financing of small business. To the extent that plant and equipment facilities are provided in this manner for the use of small businesses, part of their need for long-term credit is met. This does not mean, of course, that all large loans to large-scale real-estate investors provide indirect financing of small business. Such investors often borrow funds to finance facilities occupied by large rather than small businesses.

OTHER CREDIT TO SMALL BUSINESS

In addition to borrowing through business real-estate mortgages, business concerns also borrow from life-insurance companies through bond issues, policy loans, and residential mortgages. Only for bond issues are data available from the LIAA survey; limited information on the other types of business borrowing was obtained through interview.

TABLE 4.—*Distribution of business and industrial bond investments authorized by life-insurance companies, by asset size of obligor*

[Percent]

Assets of obligor	1953	1954	1955	1956
	Number			
Under $1,000,000	3.6	4.5	2.5	2.0
$1,000,000 to $2,000,000	5.3	3.9	4.9	3.6
$2,000,000 to $5,000,000	10.0	13.6	10.5	9.9
$5,000,000 to $10,000,000	10.4	14.0	10.3	9.9
Over $10,000,000	70.7	64.0	71.8	74.6
All sizes	100.0	100.0	100.0	100.0
	Amount			
Under $1,000,000	0.2	0.3	0.2	0.2
$1,000,000 to $2,000,000	1.1	.8	.9	.7
$2,000,000 to $5,000,000	3.1	3.4	4.1	3.9
$5,000,000 to $10,000,000	5.3	5.4	5.6	5.4
Over $10,000,000	90.3	90.1	89.2	89.8
All sizes	100.0	100.0	100.0	100.0

Source: Based on data from LIAA survey.

Bond issues

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By any reaonable standard, and in fact almost regardless of definition used, it is clear that life-insurance companies extend only a fractional amount of credit to small business through bond issues. In its survey, the LIAA collected corporate bond financing data by size of both loans and borrowers. In 1956 less than 6 percent of the number and 1 percent of the amount of authorized business and industrial

bond investments went to businesses having assets of under $2 million. Even for borrower assets up to $5 million, the proportions were less than one-sixth for the number and 5 percent for the amount. These percentages were smaller than in each of the preceding 3 years, as may be seen in table 4. Conversely, from two-thirds to three-fourths of the number, and nine-tenths of the amount, of such bond investments authorized by life-insurance companies between 1953 and 1956 were to firms with assets in excess of $10 million.

The concentration of industrial bond investments among large firms is equally striking when measured by size of bond. Only 3 percent of the number was for less than $50,000 in 1953 and this percentage dropped steadily to one-half of 1 percent in 1956. For bonds of less than $250,000, the number was 15 percent of the total in 1953 and dropped to 11 percent by 1956. One must go well above the $1 million loan mark to include more than half of all life-insurance company bonds with business and industrial obligors. This concentration of large bonds to large corporations is equally pronounced in the public utilities field.

Policy loans and residential real estate mortgages

Borrowing on the security of policy loans and residential mortgages is typically done by smaller concerns unable or unwilling to obtain long-term credit through more conventional routes. Unfortunately, there are no data on the volume of such borrowing.

The Prudential Insurance Co., largest mortgage lender in the Nation, is reported to have made about as many business loans secured by residential mortgages as through other means during the 1953–56 period.[3] In interview, executives of this company indicated that about one-fourth of its refinanced residential mortgages in one small urban area of the country during 1956 were for the purpose of providing funds to small-business men.

Similar evidence on the extent of small-business financing through policy loans is not available. The total of such credit outstanding is very small, however, compared with the total of residential mortgage lending—$3½ billion compared with over $25 billion at the end of 1957. Efforts of some companies to extend more nonmortgage credit to small business are described in a later section.

TERMS OF BORROWING

Reflecting the nature of their business and the character of their liabilities to policyholders, the assets of life-insurance companies consist essentially of long-term loans and investments. Business loans, whether secured by mortgages or bonds, have maturities ranging up to 30 years. Bond issues of public utility companies typically carry longer maturities than do those of industrial concerns, about 30 years compared with 20 to 25 years. Contract maturities on mortgages are generally in the neighborhood of 15 to 25 years. Data on loan maturities were not obtained in the LIAA survey, but other evidence indicates that there is apparently little difference in maturities between smaller and larger loans, through either bond issues or mortgages.

With respect to interest rates, LIAA data indicated an inverse relationship between size of loan and rate of interest in bond investments

[3] Problems of Small Business Financing, op. cit., p. 136.

and mortgage loans. This is typically the case because of the smaller administrative costs associated with large loans, and because large loans are associated with large firms which, more often than small firms, have high credit ratings. At the same time it should be noted that during the 1954–56 period, when credit conditions were tightening, interest rates increased relatively more or large than on small loans. This was more pronounced with respect to mortage loans than corporate bonds (table 5).

TABLE 5.—*Interest rates on business securities and mortgages made by life-insurance companies, by size of loan*

[Precent]

Amount of loan	1953	1954	1955	1956
	Business and industrial bonds			
Under $50,000	4.36	4.38	4.09	5.53
$50,000 to $100,000	5.19	4.87	4.72	4.99
$100,000 to $250,000	5.07	4.54	4.63	5.27
$250,000 to $1,000,000	4.79	4.59	4.67	5.04
$1,000,000 to $5,000,000	4.50	4.23	4.34	4.77
$5,000,000 to $10,000,000	4.44	4.10	4.20	4.55
$10,000,000 and over	3.88	3.74	3.95	4.36
	Business mortgages			
Under $25,000	5.11	5.12	5.11	5.29
$25,000 to $50,000	4.91	4.90	4.88	5.10
$50,000 to $100,000	4.80	4.81	4.75	5.00
$100,000 to $250,000	4.73	4.69	4.67	4.92
$250,000 to $1,000,000	4.63	4.56	4.62	4.88
$1,000,000 to $5,000,000	4.52	4.50	4.56	4.87
$5,000,000 to $10,000,000	4.52	4.32	4.47	4.72
$10,000,000 and over	4.45	4.50	4.68	4.68

Source: Based on data from LIAA survey.

FACTORS IN SMALL-BUSINESS FINANCING

The patterns of small-business financing by life-insurance companies is influenced by legal, risk, and administration considerations.

A primary factor limiting the extension of nonmortgage credit to small business through bond issue is the prohibition included in most State insurance laws on such loans to unincorporated businesses, or to firms, incorporated or not, which cannot show a satisfactory earnings record for at least 5 years. These legal restrictions minimize the volume of bond financing of both new businesses and older businesses which, because of tax or other advantages, prefer to operate as proprietorships or partnerships. The effect on the small-business sector is indicated by the fact that over 90 percent of small-business enterprises in the country are unincorporated.[4]

Most of the insurance company executives interviewed stressed the fact that small businesses commonly lack the managerial capacity or equity to justify loans they are seeking. Also, the entire success of a small business frequently depends upon the judgment and survival of one man, who supervises production, sales, finance, and administration. Many small businesses seeking long-term debt financing are more appropriately in need of equity funds, but are unwilling to share owner-

[4] A. D. H. Kaplan, Small Business; Its Place and Problems (McGraw-Hill, 1949), p. 22.

ship and thus to risk losing control of operatinos. For such reasons, the risks associated with small nonmortgage business loans are often judged to be too great by life-insurance executives responsible for trusteed funds.

The high administrative costs of investigating and placing small loans also discourage the extension of such credit, or at least increase the charge on small-business loans relative to large loans going to large well-established businesses. Most life-insurance companies are not set up administratively to seek out and handle small bond issues successfully, especially in geographic areas remote from their own location. One large New England life-insurance company, for example, operates under a standing rule of making no loans of less than $500,000 outside the New England area.

Similar considerations do not apply, however, in evaluating applications for business mortgage credit. For such credit, legal restrictions relate to terms of lending rather than to type of business ownership or years of successful operation. In evaluating risk, life insurance companies, as noted earlier, are guided as much or more by the value of underlying properties and expected rental or sales volume as they are by the credit standing, managerial capacity, or assets of the borrower. Furthermore, in some types of business mortgage loans, credit standing of lessees is of greater importance than that of borrowers. Many factors, therefore, serve to moderate risks on mortgage lending to small-business men. Finally, through mortgage correspondent systems, life insurance companies are administratively well equipped to investigate, originate, and service small mortgage loans throughout the country.

On the demand side, it is evident that small business concerns typically do not seek long-term funds through bond issues. They are generally unfamiliar with the operation of security markets and rarely approach large life companies about direct placement of bonds. Moreover, the costs associated with bond financing are often prohibitive for small business firms.

THE QUESTION OF CREDIT AVAILABILITY

There are, clearly, basic reasons for the limited supply of, and demand for, small business loans from life insurance companies. Some companies have made special efforts to expand their small business loan activities.

One such effort is the small-business-loan plan established by the Metropolitan Life Insurance Co. as far back as 1950, for the purpose of "(*a*) determining if there was in fact an unsatisfied demand for sound small-business credit; and (*b*) helping to supply such credit if needed" (appendix A). The Metropolitan offered to finance 90 percent of small-business loans up to $250,000 each with maturities of 3 to 10 years, that were presented through local banks willing to finance the remaining 10 percent. Some 6,000 banks throughout the country were circularized about the plan. In the 8 years that the plan has been in operation there have been only 228 requests for loans amounting to $28 million. The Metropolitan has approved 86 loans aggregating $12 million, of which only 74 loans for $10 million were ultimately disbursed. None of the loans are in de-

fault. The relatively high rate of loan rejection may reflect the generally poor quality of loan applications referred by local banks unable or unwilling to provide all of the funds required.

Another more recently established program for meeting the long-term credit needs of smaller businesses is that of the Prudential Insurance Company of America. In January 1956, this company organized a commercial and industrial loan department to extend nonmortgage business credit to small- and moderate-size businesses. The Prudential has actively sought to place loans under this program. At the same time it has rejected a large proportion of applications because they came from undercapitalized firms often wanting to undertake risky ventures. A description of the operations of the Prudential's commercial and industrial loan department is included as appendix B. It is clear that Prudential's loans are for larger amounts than those made under the Metropolitan's small-business-loan plan. It is interesting to note, however, that, as time has elapsed, an increasing proportion of Prudential's loans has been for less than $500,000.

A different sort of evidence on the availability of long-term funds for small business is reflected in the actions and opinions of two large Massachusetts life-insurance companies, the John Hancock and the New England Mutual. These companies feel that the most appropriate organization for financing those small-business operations that are considered too risky for one lender is a quasi-public type of institution such as the Massachusetts Business Development Corp. This corporation is one of a number of State-development corporations established throughout the country, the operations and experiences of which are discussed in part I: Background Studies.[5] Such corporations obtain their funds through sale of stock to the public and advances from private financial institutions. In addition to making advances to such institutions, the New England Mutual and John Hancock life-insurance companies contribute the time of executives to serve on the Massachusetts Corporation's board of directors.

The experience of the Metropolitan and Prudential life-insurance companies and of State-development corporations suggests that demands by small businesses for the type of nonmortgage long-term business loans available from these institutions have been relatively light. Whether small-business men are discouraged from seeking such credit because of unfamiliarity with procedures or because of the recognized high rejection rate is not known.

CONCLUDING COMMENTS

By law and by tradition, caution is required in the investment of institutional funds, such as those of life-insurance companies. The primary factor in the investment policy of life-insurance companies is safety of principal. Secondly, they seek the highest yield obtainable commensurate with risk. Many of the problems, such as undercapitalization, weak management, and lack of experience, which make for poor credit risks, are associated with new, and typically small, businesses. life-insurance companies, in administering trusteed funds, do not seek loans with a high degree of risk, especially when

[5] See study 16 (Anderson), p. 336.

demands for high-grade loans at favorable yields are large enough to absorb all available funds. This serves generally to limit the availability of risk capital from life companies to new, usually small, enterprises.

Investment of funds of life-insurance companies in small businesses represents a minor portion of life-insurance-company investment. By any reasonable approximation, it is likely that in 1956 a net investment ranging from less than $100 million to slightly more than $200 million went to small business, out of a total volume of well over $5 billion in life-insurance-company loans and investments. At the same time it should be noted that a major share of the number of business mortgage loans made by life-insurance companies was to small-business firms. Modification of legal barriers to permit life-insurance companies to extend nonmortgage credit to unincorporated enterprises might well result in increase availablility of small-business credit.

Appendix A

Small-Business-Loan Plan of Metropolitan Life Insurance Co.

[Excerpt from letter dated February 24, 1958, from Emerson A. Schmidt, Jr., treasurer, Metropolitan Life Insurance Co., to Dr. James J. O'Leary, director of economic research, Life Insurance Association of America]

* * * Metropolitan's small-business-loan plan was announced on February 7, 1950, following hearings conducted in December 1949 in Washington before the Subcommittee on Investment of the Congressional Joint Committee on the Economic Report. There was much discussion at that hearing as to whether credit institutions were providing adequate credit for small business. As a result of the questions raised at that hearing, our plan was formulated for the purpose of (*a*) determining if there was in fact an unsatisfied demand for sound small business credit; and (*b*) helping to supply such credit if needed.

Since we always strive for a high degree of safety when investing, our first consideration was to determine how to best judge the quality of a loan applied for and the character and ability of the management. It was recognized that it would not be possible to do that solely on the basis of a written statement sent to our office in New York. On the other hand, it would be impracticable for us to maintain a staff of sufficient size to make local investigations all about the country in connection with small loans. The expense involved would be prohibitive. It was our belief that sound appraisal of this type of loan could best be made by those qualified in this field who are located in the borrower's own community. The obvious answer was to obtain the cooperation of the banks local to the borrower's business by having them participate in the making of the loans. In brief, we felt that the loans should come to us through the banks, and that the banks should take at least 10 percent of the amount of each loan and keep that proportion until maturity and share the security with us on a pro rata basis. The local bank would not only negotiate the loan but would conduct the initial investigation and make all collections, for which it would receive a service fee.

Our original transmittal letter outlining the purpose of the plan and its operation, as well as the forms to be used for submitting applications, have been sent to over 6,000 banks throughout the United States. We have advised the banks that the loans should not exceed $250,000 and that the term should not be less than 3 years nor more than 10 years.

To date, we have received applications for 228 loans amounting to $28 million from banks located in 36 States and the District of Columbia. We have approved 86 loans aggregating $12 million, of which the banks offered to take $1,600,000 or 13 percent. Applications for 12 of these loans aggregating $2 million were withdrawn by the applicants after approval. Interest rates on loans made under the plan have ranged from 4½ percent to 6 percent. More than one-half of the loans have had final maturities of 10 years and almost all

the remaining loans have had final maturities of not less than 5 years. None of the loans which we have made is in default as to principal or interest.

Due to the limitations of the New York State insurance law under which we operate, we have only been able to consider loans under our plan to incorporated businesses. It is reported that 85 percent to 90 percent of small business is unincorporated, being comprised of individual proprietorships, partnerships or associations. This has limited our experience in the small-business-loan field. * * *

APPENDIX B

THE COMMERCIAL AND INDUSTRIAL LOAN DEPARTMENT OF THE PRUDENTIAL INSURANCE CO. OF AMERICA

(Memorandum dated March 3, 1958, from Mr. Ernest S. Allsopp, vice president, the Prudential Insurance Co. of America., to Dr. James J. O'Leary, director of economic research, Life Insurance Association of America)

The commercial and industrial loan department of the Prudential Insurance Co. was created in January 1956. It officially commenced lending operations on June 1 of the same year. Its major aims were and are—

1. To bring the financial resources of the Prudential mainly through its decentralized regional home offices, to small and moderate size businesses throughout the United States and Canada.

2. To achieve the widest possible distribution of company funds by aggressively seeking direct placement investment opportunities in all parts of both countries.

The department, through the company's regional home offices, seeks out on the local level, either directly or through investment or banking institutions, concerns which ordinarily do not have access to the Nation's financial centers. Cases processed by the department fall largely into the small and medium size loan category. Larger offerings are also handled in order that our regional home offices may be in a position to serve the financial needs of the area in which they operate.

Loans are primarily unsecured. The New Jersey investment statute and company bylaws provide that an unsecured loan must be made to a corporation. The company's mortgage loan department is not so limited, and secured loans to individual proprietorships and, of course, corporations are handled by that department. Age of the company is not necessarily a criteria. Loans have been made, and will continue to be made where warranted, to companies whose corporate existence has come into being in the post World War II period. There is no minimum amount of loan, provided of course it can be determined that the borrowing company has the ability to repay long-term funds. Loans are made for a minimum term of 10 years. Sinking fund payments are flexible, usually annually or semianually.

During the initial 6-month period of operation, 25 loans were approved, as disclosed by the following table:

Size group	Number loans approved	Percent total loans
$500,000 and under	3	12
$500,001 to $1,000,000	8	32
$1,000,001 to $2,000,000	7	28
Above $2,000,000	7	28
Total	25	100

It is to be noted that 44 percent by number, of all loans approved, were for $1 million or under.

During 1957, further headway was made to bring the Prudential financial resources to small and moderate size companies, which resulted in almost two-thirds of the department commitments being for $1 million or less, of which 36

percent were for $500,000 and under, and 28 percent for amounts between $500,000 and $1 million. Shown below is the table of the results for the year:

Size group	Number of loans approved	Percent of total loans
$500,000 and under	18	36
$500,001 to $1,000,000	14	28
$1,000,001 to $2,000,000	10	20
Above $2,000,000	8	16
Total	50	100

Concerns to which the 50 loans were authorized are located in 41 towns and cities in 19 States in the United States and 4 cities in Canada. Industries in which investments were approved ran the gamut from aluminum jalousies to woolen outer wear, and included manufacturers of such diverse products as candy, toothbrushes, macaroni, kitchen utensils, and electronics, and merchandisers of bakery goods, groceries, and airplane parts.

It is the aim and expectation of the department that as our desires to serve smaller businesses become more widely known, our objective to serve small and moderate size corporations will come closer to achievement. We believe we are gradually getting our message across. As an example, there are under consideration at the present time the following applications:

Size group	Number of applications	Percent of total applications
$500,000 and under	26	47.3
$500,001 to $1,000,000	15	27.3
$1,000,001 to $2,000,000	7	12.7
Above $2,000,000	7	12.7
Total	55	100.0

It is not possible to determine at this time how many of such applications will ultimately be approved, but the upward trend in the development of loans in the $500,000 and under category is self-evident.

The road leading to a sizable portfolio of loans to small- and medium-size corporations is not an easy one. It is also time-consuming. Among the problems we face, but by no means all of them, are the following:

Lack of adequate financial information to determine the soundness of the investment. This at times necessitates a rebuilding of balance sheets and income statements. This is most particularly applicable in the one-man business type of operation where the controlling stockholder has had limited financial experience.

A tendency to create affiliated companies and additional corporations to minimize income taxes. The composite financial picture of all the corporations may be necessary in order to justify the soundness of the loan. In many instances, it is either not possible to accomplish this or, if it is, through cross guaranties, the legal validity of such guaranties in many instances is questionable.

The refusal by some smaller borrowers, because of unfamiliarity, to grant covenants which are normally acceptable in long-term financing.

Desire of smaller companies to finance primarily through the debt route, with the net result that the amount of debt requested is topheavy compared with the equity of the borrower.

The one-product and the one-man company with the dangers necessarily inherent in such type operations.

Despite these and other problems, our experience to date leads us to the sound belief that they are not insurmountable and that, as we move forward an increasing volume of this business can be developed with safety and profit.

VII. AVAILABILITY AND COST OF EXTERNAL EQUITY CAPITAL FOR SMALL BUSINESS VENTURES [1]

INTRODUCTION

This report is based on a survey of opinion among persons who are, in one way on another, involved in supplying external equity capital to small businesses. External capital can be viewed as those amounts above and beyond the amounts that proprietors can supply from their own savings or can raise from relatives and personal friends.

Most external capital for small business comes from individual investors or small informal groups of investors. A few closed-end investment companies (about half a dozen) have gone into small business ventures from time to time, and 3 or 4 specialized venture capital funds invests in such enterprises. A few larger "small" businesses have been able to sell their securities on the public markets. But individuals are still the principal source of small business venture capital.

The survey consisted of interviews with investors who participate in small business financing, with investment bankers who specialize in negotiating such financing or in the public offering of small issues, and with the professional investment managers of the closed-end investment companies and venture capital funds which participate in this market. The 87 interviews covered about 100 individual respondents. They were conducted by six members of the research staffs of the Federal Reserve banks and the Board of Governors in five Federal Reserve districts.

The survey was not as extensive as had been hoped when it was organized nor was it a wholly satisfactory foundation from which to draw conclusions. For one thing the sample was not only small, it was marred by some inherent biases.[2] Those interviewed clearly had no interest in what might be called the prosaic service businesses. This excludes many small businesses, such as gasoline filling stations, grocery stores, automobile dealers, radio and television stores, drugstores, restaurants, dry cleaners, laundries, and laundromats. Oc-

[1] This survey was planned, some of the interviews were conducted, and this report was prepared by: Gilbert T. Brown, regional economist, Federal Reserve Bank of Boston; Seymour H. Miller, economist, Federal Reserve Bank of San Francisco; Lawrence S. Ritter, economist, Federal Reserve Bank of New York; and Roland I. Robinson, adviser in the Board's Division of Research and Statistics. Interviews were also conducted by Oscar F. Litterer, business economist, Federal Reserve Bank of Minneapolis, and Leslie C. Peacock, financial economist, Federal Reserve Bank of Dallas.

Robinson, Roland Inwood. Ph. D., University of Michigan, 1937; instructor, University of Michigan, 1929–34; with Federal Reserve Board, 1934–46. Conducted research on monetary and credit problems, administered Banking and Consumer Credit Research Unit; also wrote on banking and monetary matters for Federal Reserve Bulletin and Board's annual reports. With National Association Mutual Savings Banks, 1946–47, economist and author of articles for their trade journals. Professor banking, Northwestern University, 1947–55; chairman department, National Bureau of Economic Research; Capital Markets Research, 1955–56. Federal Reserve, 1956 to date. Lecturer, Central States School of Banking. Member American Economic Association, American Finance Association (president 1953). Author: Management of Bank Funds; coauthor: Financial Institutions.

[2] A detailed account of the interview procedure of this survey and of the conceptual problems it posed appears in the appendix.

casionally an unusually aggressive promotor may successfully combine a number of these units into chains. Except for such unusual cases, however, the respondents said that service businesses usually lack the growth potential required to attract sophisticated venture capital.

The odds are stacked against successful outside investment in small service enterprises. Badly managed, these enterprises can dissipate the capital invested in them. Well managed, the owners may earn respectable livings and good returns on their investments. The earnings, however, are seldom large enough to attract outside funds, even under optimum conditions. The view seemed to be that small service businesses furnish jobs for those who prize independence and chafe at the discipline of modern large-scale business or governmental organizations. In other words, the amount of capital now being invested in them probably is as much as is justified by economic considerations.

The respondents encountered in these interviews tended to be interested in unusual business ventures—"special situations."[3] For this reason the interviewers doubtless failed to encounter some direct investment in more orthodox types of business. Much of this direct investment is probably of a less risky nature, of the sort that attracts conservative men of means. Respondents to the interviews, being mostly in the central capital markets, search widely looking for profitable investment opportunities. They are conservative but not timid investors. They have the imagination to seek large profit opportunities in remote and unusual enterprises. Thus, the inquiry turned partly into a study of the availability of venture capital which can be thought of as a specialized form of equity capital.

Still one more general warning must be voiced. These respondents were knowledgeable investors or those who represented them, and their attitudes reflected a great deal of broadmindedness. But their view was undeniably from one side of the market. If small-business men were to go out among strangers to raise capital, they probably would have a different view of the problem.

If this survey yielded any one finding it is that capital, while available to small business ventures, is available mainly to the relatively more promising ones and on rather stiff terms. On the other hand, the survey gave no clues as to ways in which venture capital could be made available to a wider range of businesses or on milder terms within existing institutional arrangements. The investors who specialize in this market are thoroughly sophisticated and are aware of the alternatives open for use of their funds. The survey showed no evidence that venture investment in small business yielded on the average appreciably more than investment in the more widely known and more conventional outlets.

Because this survey was not based on a homogeneous group of respondents, it was not feasible to make numerical counts or to prepare tabulations. For this reason, the organization of this report is in functional form and is not parallel to the interview pattern. The section that follows reports a brief digest of comments made with respect to the demand for equity funds by small business. The next section lists the sources of equity capital tapped by direct negotiation.

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[3] A "special situation" may be described as a business venture which has a high potential of profit but is also quite risky. Not all "specal situations" are small, though most of them would fall in this category.

The terms on which capital is commonly made available are summarized and the forms in which various "deals" have been made are described. The fourth section of this paper summarizes the conditions under which small businesses can raise equity capital by the public sale of securities. The following section reports the influence of taxes on the respondent investors and comments on their tax views. The final section reports the opinions of respondents with respect to the influence of Federal Reserve credit and monetary policy on the availability and cost of equity capital to small businesses.

DEMAND FOR EQUITY CAPITAL [4]

Respondents to these interviews reported that there is a widespread demand by small businesses for loan funds, particularly long-term loans. They were almost unanimous in reporting, however, that the financial conditions of very few small businesses justify long-term loans; the real need of these businesses, if any, is for equity funds—for risk or "venture" capital. The wide gap of opinion between the respondents to these interviews and the proprietors of small business thus starts from the very beginning of negotiations. What small business proprietors often want by way of financial assistance is not what these respondents felt they should have or what they were prepared to supply.

Respondents reported receiving applications from small businesses for outside capital at all stages of their life cycle: in the very beginning before starting developmental or organization work; during the organization or developmental period but before any sales have been made; after the first sales have been made but before an earnings record has been established; and even later. After a considerable period of successful operation a small business may, because of fortuitous business reverses, seek outside capital for the first time.

The more conservative investors interviewed seemed to prefer to come into a small business after it has started operations and has demonstrated its capacity to produce, to make sales, and to earn profits. Others prefer to get in earlier, feeling they can make a better bargain at that stage. Indeed, one of the interesting points revealed in the interviews was that small business investors seem to specialize; some feel they can make a better and safer investment at one stage of development, some at another. The nature of the financial problem differs, of course, depending on the stage in the life cycle of the business when it seeks outside capital.

New enterprises

Unless a new enterprise has simple capital needs or unless its owner is wealthy, it may have to seek outside capital before it can start operations. It must obtain a site of operation, equipment, and materials, pay wages, and probably be prepared to extend some credit to customers. On occasion it can get credit from suppliers or even advances from customers. Credit is most available from these sources, however, when its supplier's markets are not good or its customers cannot readily find other sellers. Such credit is likely to be costly, since it places

[4] Some of the points made in this section were developed in the interviews but some are also drawn from an unpublished study of the financial problems of technologically based enterprises made by Prof. Albert Rubenstein of the Massachusetts Institute of Technology.

the recipient in a poor bargaining position on purchases and sales. It is also subject to abrupt cancellation.

A new business based on a new process or new product just out of the research laboratory faces some especially acute problems. The person who seeks product applications of new scientific discoveries finds it very difficult to obtain financing. Research of this sort may be costly. Once a working model of a new product has been built, investor interest may be attracted. A certain number of ventures are able to raise capital at this time. At a later stage, after there have been enough sales to indicate that a product is technically adequate and has a market, owners are usually able to pick and choose between alternative offers of additional capital.

Prior to the start of marketing, however, many firms have little or nothing in the way of collateral to pledge for credit. Even if they solve this problem and start successful operation, competition usually arises quickly. In technological enterprises this may cause the primary area of competition to shift from innovation to price. New firms may find their costs too high, primarily because of lack of management controls. Furthermore, the lifeblood of such businesses is generally more research. If they "freeze" their product or process as soon as they have a market, they may soon find that the parade has passed them by. If new firms try to postpone continued developmental work, they may find themselves in difficulty later.

Growing businesses

Growth often requires more funds than are available from profits. An increasing volume of business requires additional working capital and, beyond certain limits, more fixed capital. Sometimes large new orders cannot be accepted because of inadequate capital. Both new and established firms sometimes get into trouble by "trying to grow too fast." Opportunities for growth, however, are not always open and must be seized when available. Aggressive small business proprietors sometimes feel that a life-or-death gamble is forced on them by outside circumstances.

Inflationary periods of rising wages and prices may intensify the capital shortage problem for the growing firm. Finally, in addition to the above problems, the best planning often goes awry when the unforeseen happens. A large company with an established position can bury a few mistakes without getting into financial difficulties. It can survive some unfavorable events. For a small firm, one bit of bad luck may cause failure unless the proprietor is able to raise added capital to overcome the difficulty.

SUPPLY OF EQUITY CAPITAL BY DIRECT NEGOTIATION [5]

When the proprietor of a small business goes in search of outside capital, and finds he cannot get it in loan form, the next step is to find the specialized investors who are willing to put money into small-business ventures. This step does not follow a pattern that is as well standardized as the credit-granting process of the leading institutional lenders; it is even more diverse in character than formal investment banking. Basically, it is a process of negotiation, bargaining, or "dealing." This section describes the diverse investment practices

[5] The slightly larger "small" businesses that can persuade underwriters to sell their securities in the public market will be dealt with in the following section.

involved in the external financing of small business by direct negotiation.

One of the principal functions of this section will be to characterize the types of investors who are willing to put money into a small-business venture. It will review standards observed in the selection of small-business investment as reported in interviews. It will also deal with the terms on which such bargains are made and the significance of these terms for small-business financing.

Sources of funds and supply characteristics

Sources of funds.—At one time or another in the interviews, the following types of individuals and organizations were reported to supply venture funds for promising growth situations: Wealthy individuals, family estates, partners and associates in investment-banking houses, investment-banking firms for their own account, closed-end investment companies, outright venture-capital firms, pension funds, nonfinancial corporations seeking diversification, dissatisfied corporate officers, wealthy men seeking active management roles, and others. Retired or semiretired men sometimes are willing to invest in a local business if it promises to yield a safe and above-average return. They are even more likely to invest if, in addition, they are able to participate usefully in the affairs of the firm, perhaps on a part-time or consulting basis.

Though this list is impressively long, the interviewers concluded that wealthy men—whether as individuals, as partners in investment-banking houses, or as corporate officers—are the backbone of this market. The interviewers sensed some loss of enthusiasm for special-situation investment in closed-end investment companies. The venture-capital firms, while still venturing, seemed, over the postwar decade, to have become less willing to enter a very small company. The venture-capital firms in the sample reported without exception, that they had withdrawn completely from the financing of brandnew firms because of loss experience with such investments and the high degree of risk involved. They now prefer to enter a project after it has been in operation for a period of time. They are, however, willing to finance new product development by a going and successful concern.

The only growing source of small-business venture capital seemed to be large corporations which have more cash than they need for their own operations. They may be prosperous companies or, sometimes, those in dwindling industries that are not reinvesting depreciation charges. Corporations often prefer to buy a small company outright, and they feel safer with a majority interest if complete purchase cannot be negotiated. If a business venture is unusually promising, however, they may be willing to purchase a minority interest. Some small-business men solve their equity problems by selling some portion of equity to a larger firm. The current management may keep most aspects of operating control but get ancillary management aid from the buying corporation. Some large corporatinos have paid unusually favorable prices for small companies when they were anxious to obtain the services of their owners or rights to their products.

When a corporate officer or a wealthy young man is seeking a responsible position in a firm of his own, or is joining a firm as an active participant in its management, he will normally supply funds

on a more reasonable basis than would a person who is merely making an investment. Money sometimes can be obtained on especially favorable terms if it satisfies some nonmonetary ambitions of the investor—a corporate title or the equivalent.

If a small business does not promise substantial growth, its sources of funds are sharply curtailed. Nevertheless, even in such cases, corporations seeking diversification and individuals desiring to invest funds in exchange for a position may still be interested. These small businesses, however, probably will have to limit their search for equity capital to the community in which they are located.

Respondents reported that, although one backer may supply all the money for a venture, it is more common for several investors to band together in supplying the funds needed by a small business, particularly when the sum required is substantial. If an investment group or syndicate is formed, it may have as few as 2, 3, or 4 members; at the other extreme, it may have as many as 20 or 25. The total is seldom larger than about 25 because of fear and uncertainty about the Securities and Exchange Commission's distinction between a public offering and a private placement.[6] Respondents reported that individual participations vary from as low as $1,000–$2,000 to over $200,000, with the majority about $5,000–$50,000. The total sum invested by a group in any 1 firm will often be in the neighborhood of $100,000 to $1 million, although it is occasionally as little as $10,000 or as large as $4 million.

Venture-capital funds and closed-end investment companies often supply all the outside capital needed for a small venture. Some of them prefer solo investment, since this avoids the need to compromise management policies with other backers. On the other hand, one venture-capital fund prefers partnership operations. The manager of this fund feels that another participant helps to check and confirm his own policy views. In big-business ventures, both the funds and investment companies prefer to form syndicates so as to spread the risk.

Various middlemen make the arrangements described above. Tax lawyers or accountants with wealthy clients and wide contacts in the financial community appear to have emerged as one new and important class of such middlemen. Management consultants, who in the ordinary course of business encounter small businesses with capital needs, sometimes negotiate the supply of such funds. Middlemen usually receive a "finder's fee," reported to be from 5 to 10 percent of the sum involved.

The middleman function is sometimes performed, occasionally without fee, by investment-banking houses. Such concerns often have one or more salesmen or securities analysts specializing in these situations and screening requests for capital. If a promising situation is found, but one not ripe for public offering, they will contact persons who have indicated an interest in supplying such venture funds. These sources will be, primarily, wealthy clients and associates. Several partners and analysts in investment-banking firms said they had invested their own funds in promising small growth companies from time to time. Investment-banking houses sometimes invest in an un-

[6] A few large joint-venture syndicates have been registered with the Securities and Exchange Commission.

usually promising enterprise for their partnership account. Of perhaps greater quantitative importance is the wide knowledge such houses have of sources of funds seeking this kind of investment. Similarly, many brokerage firms have wealthy customers to whom they may recommend special situations. At times, commercial banks will recommend special situations to wealthy depositors.

Some of the persons who invest small amounts in struggling little businesses appear to do so partly for noneconomic reasons. They may do it because they like "to take a flier," to defy cooly calculated probability. They are exhilarated by the business process, like to get involved in management problems, and enjoy competing. Some wealthy men take seriously the social responsibilities of wealth; they believe that they should invest in small businesses and be helpful to small-business men for these reasons.

A considerable degree of specialization seems to have developed throughout the area of venture-capital financing, as elsewhere in the financial community. Venture-capital firms, investment companies, and investment bankers often seem to specialize in particular industries; specialization with respect to the types of situations these firms as a group will handle also seems evident. Some individuals, such as some patent attorneys, specialize in new product development. Some individuals will take an active interest in distressed firms. Investment-banking houses have similar specialties; some specialize in industries such as petroleum or electronics. Some individuals and investment firms seem to specialize by size of situation, such as investments under $100,000, others in the $100,000–$250,000 range, still others in the $250,000–$1 million range, and a few are reluctant to invest amounts smaller than $1 million.

Quality standards needed to attract equity funds.—Almost all respondents agreed that a very large portion of small-business capital seekers fail to pass the screening process. Most investors report that about 90 out of 100 applicants for equity funds can be and are rejected after a brief interview. Eight or nine of the remaining ten are likely to be turned down at some later stage in the screening process. Only 1 or 2 percent of the applicants finally achieve their goal. One venture-capital fund has kept a statistical record of applications and acceptances for a decade; the "pass" ratio in its screening has averaged under 1 percent, year after year.

One reason cited almost universally for the rejection of small-business financing requests is some defect in management. The respondents usually mean some form of unbalanced management rather than bad management. One man usually dominates the management of a small business. That, in itself, constitutes an element of risk. Some investment bankers refuse to offer the securities of a company publicly unless satisfactory management succession has been arranged. The promoter of a small business is often a specialist without general business experience or ability. He may be an engineer without financial experience, a salesman without production experience, a financier who is inept in his human relations. Two investment bankers cited unexpected and unwarranted extravagance by businesses soon after receiving outside financing—such as buying a company airplane or building luxurious office space.

The second most frequently cited reason for rejection was lack of satisfactory growth potential. This was attributed to a number of

factors: the nature of the product or process, or the nature of the demand for it. Growth potential is important to investors in special situations because they are "locked in" until the firm either grows large enough to have its securities traded on the public market or until it can be sold to or merged with a larger company. Investment bankers often judge the prospect for future growth in terms of the possibility that, at some time in the future, the company will be ripe for a public offering.

A venture-capital firm or an investment company usually screens all phases of a project carefully before it invests for its own account or recommends the situation to others. This includes judgment as to the character and capacity of the individuals involved; their ability to adapt themselves to the growth they claim as likely; an investigation of the technological feasibility of the new product or process, including likely costs; an evaluatilon of the potential market for the product or process, including the nature and the long-run future of the industry of which the firm is a part; an examination of the firm's past earnings and accounting records; and an investigation into relevant legal aspects, such as those regarding patents. This is virtually the same scale of investigation undertaken by a reputable investment-banking house before making a public offering. A poor showing on almost any one of the factors listed above would generally be considered sufficient reason for rejection of a project, since almost all of these ingredients are required if there is to be satisfactory growth potential. In most cases, it is found that a firm's own evaluation of its future growth prospects is substantially above that of independent consultants hired to give an objective appraisal of the situation.

On the other hand, it seemed to the interviewers that wealthy individual investors, in contrast with the larger funds, seemed to accept the judgment of friends as to the opportunities inherent in a special situation. This casualness may be due to the difficulties of investigation for any but specialists in such matters. The fraternity of individual backers of small businesses appears to be rather close knit, at least on a local level. A good deal of information is passed about by word of mouth. If one investor, who enjoys considerable prestige among his associates, believes a situation to be promising and recommends it to others, his friends may participate, merely on the basis of his recommendation.

Some industries attract venture-capital investment more readily than others. Manufacturing companies based on technology, or mines producing currently scarce raw materials, have at various times during the postwar decade received substantial investor attention—electronics, chemicals, plastics, oil exploration, uranium mining, and drug manufacturing. On the other hand, the field of distribution is, generally, not as favorably received, although shopping centers attracted a good deal of interest several years ago. Waves of fashion recede as well as swell; for example, plastics fell from favor several years ago and interest in uranium mining has dwindled. Several respondents noted that electronics firms were not attracting the enthusiasm today that they did 2 or 3 years ago.

Although the rejection rate may be high, it was the opinion of the respondents (and the reaction of interviewers) that some very speculative projects get financed. Hindsight is involved in this judgment,

but some truly astounding examples of such cases were cited to the interviewers. If the orbit of interviewing had covered unsuccessful small-business investors as well as the successful ones interviewed, this impression might have been even stronger.

Lower size limits for negotiated financing.—Virtually all institutional venture-capital investors interviewed reported that the minimum size for a project they would consider had been increased during the postwar decade. Some said that, earlier, they had been willing to consider quite small ventures. But the overhead cost of running a venture-capital institution, of paying for screening, and the higher loss rate for very small ventures, have caused them to enforce a minimum size. The smaller ventures seem to have become primarily the province of the individual investor, singly or in groups.

Concentration of the institutional investors in larger situations is not only due to unfavorable loss experience and heavy expense involved in screening prospects, but to the excessive amount of time and expense that is often required after the investment has been made. Venture-capital funds usually supply continuing management and financial advice to the firm in which they have acquired an interest—mainly, or at least partly, to protect that interest. The general reasoning on the part of the larger venture-capital funds seems to be that the time spent assisting a large number of small companies is far greater than warranted by the rewards. If only 1 day a month is spent helping with the problems of each of 20 small firms, for instance, that, alone, would take the complete time of 1 executive. Good executives for venture-capital firms are scarce, since they should be both technically and financially knowledgeable in a variety of fields.

As a result of the administrative expense involved and, also, the heavy losses sustained from investment in smaller businesses, venture-capital funds, investment companies, and investment-banking concerns seem, generally, to have adopted a flat policy against financing such operations. One venture-capital fund reported that, while it formerly went into businesses with assets of under $100,000, its present policy was to concentrate on those having assets of at least $1 million. Furthermore, the fund no longer looks at new inventions and untested ideas, but, instead, prefers to invest in going concerns that need money for expansion and new product development. Another investment company has raised its lower limit for single investments from $50,000 to $250,000. Still another reported that it is considering raising its lower limit on single investments from $100,000 to perhaps as high as $1 million and, in line with this, it is no longer willing to go into businesses with assets as small as $1 million.

On the other hand, as noted above, some investors still invest in smaller firms. One venture-capital fund reported that its size policy was unchanged; it will invest as little as $25,000 in a firm. No change in this policy was reported to be imminent. A large commercial bank indicated that it frequently arranges private equity financing for chemical companies with assets of less than $100,000. The phenomenon of specialization also seems to be at work here; larger funds seem to concentrate on the growth and development of medium-size concerns (which are still too small, risky, or unstable for a public offering), while other funds and primarily individuals—investing their own money, separately or in groups—have become relatively

more important in arrangements involving smaller sums. The extent to which promising small ventures with capital requirements of no more than $100,000 exist in this age of complex technology and at current price levels is not clear, but some projects clearly fall in this category. Even if these situations are only moderately frequent, they may be of considerable importance in terms of economic growth and technological dynamics.

A quite special kind of investor in small businesses with technological orientations is sometimes found; for example, a geophysicist who is an independent consultant was cited as having invested in a tiny company engaged in specialized instrumentation for oil exploration. An ex-engineer who is a corporation officer in a large electrical-machinery manufacturing firm was said to have put time and money into a firm manufacturing paints with special electrolytic qualities. Such situations could, conceivably, involve complex ethical problems and potential conflicts of interest. On the other hand, it is hard to imagine where venture-capital money in relatively small units from investors with such expert discrimination could be found if this practice were discouraged.[7]

Closely connected with the problem of size, per se, is that of newness. As has been mentioned, the large venture funds have become more reluctant to finance new ideas or projects. The one venture capital fund which still invests as little as $25,000 at a time has adopted the policy of putting money into a business only after it has been in operation for at least 1 year. As with several other venture funds, it formerly advanced money to start new firms, but loss experience was so heavy that this practice has been abandoned. Other respondents reported that they would consider new firms, but rarely found them promising prospects. On the other hand, while few are willing to finance a new idea which has no working model and no sales, financing is often forthcoming—frequently from individuals and occasionally from investment banking houses—after a product has been proven in its initial stages by a few successful sales or contracts.

Terms on which venture equity capital is available

The terms on which venture equity capital is supplied vary greatly particularly with respect to the amount of control or stock expected by investors and the rate of return anticipated under optimum conditions. In general, these depend upon the sum of money involved, the degree of risk inherent in the particular venture, and alternative investment opportunities available, including the public stock market. In addition, as mentioned earlier, a person joining a business as an active participant in its management will ordinarily supply funds on a more reasonable basis than a person merely making an investment.

Ownership and control.—The interviewers found a great diversity of attitudes with respect to control. Except for those who combine investment with employment, few investors want to assume managerial responsibilities, but most of them feel the need for some sort of ultimate or contingent control in order to protect their interests. In almost all cases the kind of control and the percentage of stock to be given up in exchange for funds is subject to a wide bargaining range.

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[7] Thomas H. Sanders, Little Outside Ventures, in his Effects of Taxation on Executives (Graduate School of Business Administration, Harvard University, 1951), ch. 12.

A certain amount of conflict is, of course, inevitable. Those seeking capital resist relinquishing control or a large share of the equity. Investors seek the kind of influence they believe necessary to protect their interest and the profit prospects necessary to attract their participation. The respondents to the interviews reported almost universally that the proprietors of small businesses were reluctant to give up an equity interest in their ventures; they refused "to move over" and in effect asked for loans which their credit ratings could not support.

The proportion of equity demanded by outside investors varies widely: from 10 to 75 percent were mentioned in the interviews. Respondents were of the opinion that most "deals" were for proportions between 20 and 50 percent, the exact amount depending upon the sum of money involved, the amount already invested by the owner, prospective profits, the extent to which successful operations depend on the owner's special talents or abilities, the bargaining power of the principals, the degree of risk involved in the particular situation, and alternative yields currently available in other investment outlets, such as the stock market.

Some venture funds reported that they want no control other than the right to put a representative on the board of directors, with an eye especially to surveillance of financial management. One stated that most of the time it did not even put a man on the board of directors. At the other extreme, one investment company reported that it will no longer go into a company in which it does not obtain a majority stock interest, although it had done so in the past. A possible arrangement is to make the investment in the form of convertible debentures, allowing the present management to retain control so long as the interest on the debentures held by the investor is paid or other specified conditions are met.[8] If the interest lapses or these other conditions are not met, then the right of conversion may be exercised so as to transfer effective control to the investors. In some cases a mutually agreed upon third party may hold the balance of power. An investor backing a new invention usually expects to receive a majority interest in the company being formed; some respondents said 51 percent; others cited a two-thirds interest. Established concerns seeking funds for expansion or new product development do not have to meet such terms if their record is otherwise satisfactory.

Tolerable waiting period.—Investment in a small-business venture is generally regarded as illiquid. The investor seldom can sell his interest until the developmental period has passed. Even if successful, it may take a considerable period for the enterprise to accumulate enough retained earnings so that the original proprietor can buy out his backer. Such an investment is often called a "lock-in" by investment bankers.

Most investors do not wish to be "locked in" for longer than about 3 to 5 years. A few respondents said they would not invest unless they could, under optimum conditions, expect to liquidate with a profit within 1 or 2 years. A few stated that they were occasionally willing to wait as long as 8 or 10 years to realize on their investment. The vast majority, however, indicated that they were not prepared

[8] This sometimes takes the form of the so-called thin corporation, an explanation of which appears on p. 43.

to wait longer than a maximum of 5 years and generally preferred no more than 3. To some extent allowances were made for the type of situation: those based on new technology often take longer to realize their potential than others, a fact recognized by some but not all investors.

Although individual investors tend to be impatient for their profits, outright-venture-capital firms tend to take a longer view. One venture-capital firm mentioned 8 years as not unusual, another 10 years.

Individual investors often consider investment a one-shot affair. Venture-capital firms and investment companies, chastened by experience with initial disappointments, are sometimes prepared to follow up initial investment with further funds if the ultimate expectation continues to be promising, even though developments are not moving as rapidly as had been originally expected. Several shrewd managers said no one should go into a development project without expecting such followup additions. Others cited this same fact as one of the dangers of this form of investment.

With the ever-increasing complexity of technology, and under existing conditions of production and marketing, the presently tolerable waiting period for returning capital with a profit appears to be a rather brief one in which to expect a small enterprise to mature. Most large companies that are dependent on electrical or chemical technology now budget for a cycle of development considerably longer than 5 years, a few as long as 10 or 15 years. What is started as unspecified or general research may not demonstrate profitmaking possibilities for a decade or more. Furthermore, it must be recollected that in these large firms the other problems such as financing, production, and marketing usually can be solved more expeditiously. A small new firm may need more time than an existing big one to bring a new product to market. Our interviewers gained the clear impression that many small enterprises failed because the promoters had not allowed enough funds in their financing program to carry them over an unexpectedly long period of research, of development, of tooling up for production, or of developing markets.

Expected rate of return.—Respondents reported that the minimum inducement necessary for them to invest equity funds in a "lock-in" is the prospect of a high return; the median figure appeared to be about a 20 percent annual appreciation on their investment. A few stated a somewhat lower, and some a higher, figure, but the great majority expressed the belief that investing in a situation is not worthwhile unless there is promise of doubling the investment within 3 to 5 years. One closed-end investment company mentioned the goal of a 10-percent return after taxes for its stockholders, but pointed out that a much higher rate of return was needed from successful ventures to offset the inevitable losses. One respondent, manager of a venture capital fund, mentioned a minimum goal of a tenfold appreciation of original investment in 10 years. While this may seem like a quite high return, it amounts only to a doubling of investment each 3 years; not far from the goal mentioned several times by other investors. When debt instruments are involved in addition to the stock participation, as is frequently the case, the rate of interest is usually a nominal 5 or 6 percent.[9] In these situations the equity

[9] An explanation of the "thin" corporations appears on p. 544.

position, which they hope will yield a capital gain, is the important inducement rather than the interest income.

The guarded remarks of the funds which do not publish financial statements and the public records of those which do publish them indicate that the institutional venture capital investors (funds and closed-end companies) apparently have fallen short of realizing their goals—usually thought to be about 15- to 20-percent capital appreciation annually. This record was made in spite of the fact that their intensive screening presumably removes the poorer prospects, and leaves only the best risks. The interviewers did not attempt to pry into the personal affairs of the noninstitutional respondents. Some investors, however, volunteered comments about their experience. Some said that they had done very well, but most stated that loss experience and expenses had offset a substantial fraction of the gains from successful ventures. Some said, rather ruefully, that they would have done just about as well over the past 5 or 10 years investing in good common stocks of large companies listed on the securities exchanges, and with a great deal less trouble and effort. While the stock market has done well in the past decade, small business, in general, has also prospered.

The method of getting access to respondents that had to be followed in this project suggests that the successful venture capital investors, and not investors who failed, were interviewed.[10] If those who had retired from or who had lost out in the field had been interviewed, reports of an even lower average rate of return on venture investment might have been found. Further evidence is sorely needed, but that assembled in this survey suggests that the amount of capital going into venture capital investment may well be about all that the "test of the market" can justify on purely economic grounds. In other words, private channels may be diverting at least as much capital into venturing as is justified by the test of comparative earnings net of losses.

For whom is venture investment appropriate?—Several of those interviewed reported that some rich men make it a policy to put about one-tenth of their total portfolio into small-business ventures. Some of the respondents, however, apparently had a considerably larger part of their portfolios so invested. The almost universal view, however, was that an investor who put outside capital into small-business ventures should have a substantial portion of his portfolio in more liquid open-market securities. Not only is such liquidity needed for purposes of investment mobility and for protection of heirs, it is also an important tax consideration. An investor needs such a portfolio division if he is to offset his capital losses against capital gains.

Respondents also thought an outside investor in small business should take a stake in several enterprises if he goes into venture investment at all so as to diversify his risks. A man promoting a small business may not be able to diversify; he stakes his future on the success of his own efforts. An outside investor, however, would not be prudent to take this view.

If account is taken of the prudent division of an investment portfolio between venture investment and other forms of investment, of the need for diversification, and of the practical unit size for invest-

[10] See the appendix.

ment in small ventures, it follows that venture investment is appropriate only for rich and aggressive investors.

PUBLIC SALE OF SECURITIES

Up to this point we have been concerned primarily with raising equity capital through direct negotiation with individuals and organizations. As mentioned in the introduction, however, some small corporations are able to sell their stock to the general public. This section is primarily concerned with those firms that are marginal raisers of funds through public flotations.

Conditions and costs of public sale

The investment banking respondents felt that size is an important but not necessarily a conclusive consideration as to whether or not securities of a given business can be offered for public subscription. They recognize, however, that the costs of a public offering create a lower limit that excludes a very large part of small businesses.

Type of business appropriate for public offering.—Investment banking respondents made clear the minimum conditions that had to be met by a small business to make its securities salable by public offering; it had to promise a very large profit potential, such as a uranium mine; or it had to possess great growth potential, such as a firm making electronic computers. A few investment banking firms specialize in the sale of such highly speculative issues. The great bulk of the investment banking community, however, and most of those interviewed, have clients for whom such securities are not thought appropriate investments.

A small high-quality company almost certainly could get a reputable banking firm to offer its securities to the public. An interesting and surprising point made in these interviews, however, was that such a small business probably could be sold as a complete unit to a corporation or to an individual at a higher price-earnings ratio than could be realized from the sale of its securities to many investors in the public market. This was cited as an explanation of the fact that public offerings of high-quality small businesses are rare. A small company in a speculative position would find only a limited number of investment banking houses that would be willing to handle a public offering, and these would generally be the small and less well-known firms.

Cost of a public offering.—Investment banking respondents in the survey were all aware of the fact that the cost of a public offering often made this source of capital prohibitive for small businesses. They pointed to the high overhead cost of legal fees and of investigation required for public offering. A great many, though not all of them, thought that the costs involved in financing by direct negotiation were significantly less than those of a public offering.

The Securities and Exchange Commission has made several studies of the cost of flotation of securities. All of these studies show that raising equity funds costs considerably more than selling debt obligations and that small issues cost more than large issues.[11] Small businesses need to raise small amounts. Since the investigational and administrative costs associated with public flotation are inflexible if

[11] This subject is dealt with in pt. I, Background Studies, study 13 (Pickering), p. 282.

not fixed costs, the cost of a small public financing per dollar raised is necessarily high. Some of the respondents contended that regulation of public offerings of securities by the SEC has increased costs unreasonably. This contention, however, was not sustained by all investment-banking respondents interviewed.

Investment-banking respondents pointed out that some investment bankers specialize in handling small issues. These were sometimes called "regulation A" houses because of the SEC regulation of that designation which allows abbreviated offering procedures for issues of $300,000 or less. These firms were reported to have adopted investigative and offering procedures and sales techniques which made such small offerings economically feasible. Most of the investment bankers interviewed observe minima considerably above the $300,000 level. Very few of them would consider an issue involving less than $1 million, though the respondents reported some deviation from this rule.

The investment bankers interviewed estimated the cost of public flotation at from one-fourth to one-third of gross proceeds for public-security issues at the regulation A margin and defended this cost as reasonable. Most of them seemed to believe that the price-earnings ratio on which an issue could be sold to the public would not be far different from the price-earnings ratio that would be required by direct private investors. This suggests that public offerings are more costly for small companies than directly negotiated financing.

"*Best effort*" *and direct public sales of securities.*—An investment banker usually distributes a securities issue publicly only after giving the issuer a firm "underwriting" contract of sale. In a few cases, however, investment-banking firms will attempt to sell securities on a "best effort" basis. Of necessity, small businesses sometimes must accept "best effort" selling if they are to get investment-banker representation. This form of financing, however, has several disadvantages. New financing needs often have an all-or-nothing quality. The sale of only a portion of an issue is not satisfactory. The "blue sky" laws of several States, including California, specify that, unless an issue is almost completely sold, the investment funds (less sales commission) are to be returned to the investors.

Several respondents mentioned cases of firms that had sold securities directly to the public successfully without use of investment-banking machinery. The examples cited, however, suggest that this sort of operation is not far from the category of "friends and relatives" financing. One respondent pointed with pride to the underwriting of an issue of $100,000 for a cash cost to the firm of only $10,000, or one-tenth of the gross proceeds. (The fact that the underwriter secured a potentially valuable stock option probably accounted for this low margin.)

Timing and strategy of public offerings

The investment bankers interviewed stressed the importance of timing and strategy in the success of a public offering. They thought timing probably to be even more important for a small-business issue than for one of a large and well-established corporation.

When is an issue ripe for public distribution?—The respondent investment bankers felt, almost universally, that the securities of a firm still in its early developmental days were not yet ready for public distribution. They felt that a period of successful operation, possibly

when a firm is approaching the distribution of dividends, is more appropriate for a public sale. The respondents, however, were not uniform in their judgment on this point. Some investors in market securities have come to recognize the advantages of capital gains and so prefer buying securities that pay no dividends but retain their earnings. Several of the investment-banking respondents averred that the sale of shares with long-term growth prospects presented no obstacle at all, even though dividend expectations were still remote. Some of the other investment-banking respondents, however, seemed to feel that a company should be approaching the point where its success was reasonably assured before going to the public market.

Those interviewed mentioned that popular enthusiasm for certain lines of business is, perhaps, even more important in the public market than it is in directly negotiated financing. At one stage, uranium issues sold well but, afterward, the market for them collapsed. Still later, electronics producers enjoyed a great popularity. Currently, a concern working on solid-fuel rocket propellents probably could market an equity issue successfully.

Stock-market influence on public offerings.—Although some differences of opinion with respect to the effect of stock-market influences on negotiated financing prevailed among the respondents, there was none about the matter of stock-market influence on public offerings. A booming stock market helps new issue sales; a faltering stock market hurts them.

The investment-banking respondents reported that they generally feel an obligation to "make a market" for the unlisted securities they offer the public after the offering is completed. The level of prices for listed securities has an important and pervasive influence on such a dealer operation. If the investment banker feels uneasy about stock prices, he is likely to be apprehensive about the obligation of "making a market" for a recently issued security; it is likely to be a losing proposition. The process of making a market is also difficult if an issue is too small in size. If the proprietor of a small business that has recently made a public offering is, himself, a person of moderate financial means, he is not in a position to help his investment banker "make" a good market.

When is it wise for a business to solicit public ownership?

Several investment-banking respondents said that, even though a firm could sell its securities to the public, it might be ill advised to do so. Companies involved in currently popular fields of advanced technology may enjoy this privileged position early in their business life. But popularity in the investment community is fickle. If the developmental time required for a project is longer than anticipated, investors become impatient and an issue can fall from popular favor. If the price of a company's stock falls materially below the first public-issue price, it is difficult to sell a subsequent issue. On the other hand, a single original investor or small syndicate of sophisticated investors, because of their appreciation of the time required for developmental work and their closeness to the situation, might be willing to invest additional funds.

The matter of control is frequently an important consideration in deciding whether to sell securities in the public market or to seek direct or negotiated investment. The promoter of a business may be able to

retain effective control of his business, even though he sells a numerical majority of his shares in a public sale. The investment-banker respondents pointed out that they often made an effort to distribute shares widely. A counterbalancing consideration, however, is that a business promoter, though he may give up financial control to an investor or a small syndicate of investors in a negotiated sale, may also gain a valuable ally or allies. Such investors may furnish valuable financial, production, or marketing advice and help. When a large corporation invests in a small company, it frequently supplies invaluable management help, as well as more tangible support in the form of financing and sales.

The investment-banker respondents generally reported that they expected to be represented on the boards of the companies for which they sold shares. Many of them, however, prefer not to enter too closely into management affairs.

Thus, although opinion among the respondents was quite mixed with respect to the matter of public versus private financing, it was clear that many investment bankers are hesitant to offer a public issue for a small firm, either because they feel the stock may be too risky to recommend for purchase by the general public or because they feel that it involves too much promotion effort on their part or too much expense to the company. Furthermore, if the price of the stock does not hold up well, it may easily jeopardize the chances of the company to raise additional funds in the future. On the other hand, some small firms have tapped this market successfully and found it to have advantages.

EFFECTS OF TAXES ON THE AVAILABILITY AND COST OF SMALL-BUSINESS EQUITY CAPITAL [12]

With only a minimum of stimulation, the respondents to these interviews talked rather feelingly about the effects of taxes on small-business investment. The only interview question that invited a response relative to taxes was one asking the form of securities used in small-business investment, since it is generally assumed (and confirmed by the interviews) that tax considerations dominate the choice of form. The replies to this and other questions, however, suggested a somewhat broader interest in taxes.

Many of the respondents felt that the burden of taxes on the conduct of small business limited the attractiveness of this form of investment. This was puzzling since small business already enjoys some tax advantages and suffers few tax disadvantages.[13] The interviewers

[12] Since the literature on this subject is large, only two items are cited here. The classic study is J. Keith Butters and John Lintner, Effect of Federal Taxes on Growing Enterprises (Graduate School of Business Administration, Harvard University, 1945). See also, U. S. Congress, Joint Committee on the Economic Report, Federal Tax Policy for Economic Growth and Stability, Papers Submitted by Panelists, 84th Cong., 1st sess. (November 9, 1955), ch. 13, Taxation of Small Business, cited hereafter as Federal Tax Policy.

[13] That small business suffers tax disadvantages seems to have been widely accepted without challenge. In the regional hearings of the Senate Select Committee on Small Business on Tax Problems of Small Business and in the report of this committee to Congress this view is encountered repeatedly. (Hearings, 85th Cong., 1st sess., September to December 1957; S. Report. 1237, 85th Cong., 2d sess., January 30, 1958.) This view does not seem to be supported by the facts of tax law. Tax advantages of small businesses include the following: They can avoid incorporation more readily than a big business if such is advantageous taxwise as it frequently is. Under present tax law certain partnerships may elect to be taxed as corporations, if they make the election on an irrevocable basis. Small corporations have a lower average rate of income taxation. Corporations pay only a 30 percent income tax on the first $25,000 of income, an advantage which is significant only to small corporations. Small corporations enjoy somewhat greater latitude than is true of

were unable to judge to what extent these views represented a real deterrent or were simply for the record. A few of the respondents were asked to explain their reasons for feeling small business was at a tax disadvantage. They were generally unable to do so very cogently.

Are small business taxes an investment deterrent?

If investors really feel that taxes paid by small businesses are in some degree an investment deterrent, it was felt important to locate the source of these feelings. The interviews brought out three points that may account for some of them. In the first place, these investors are interested primarily in small businesses that are expected to grow rapidly, and taxes can create financial problems for any rapidly growing business. Second, it was averred that small businesses cannot control prices and profits as well as large businesses. Taxes can embarrass any business that suffers a weak control of prices and profits. Finally, small businesses apparently find it harder to retain the tax advantages of development costs than do large businesses.

Taxes and growth of small business.—The rate of growth reported to be necessary to make a small business an attractive investment is much higher than that expected of a large company. Investment analysts would consider an industry in which sales grew 10 percent per annum to be a strong growth industry. The respondents, however, indicated that a much higher expected rate of growth than this was required if a small-business situation was to be considered an attractive investment (see p. 536).

This suggests that dynamic small businesses have a more difficult financing problem that large businesses, and one that can hardly be solved by retained earnings. If large businesses grew at the same high rates expected of small businesses, they, too, would be less able to finance themselves from retained earnings. In other words, the frequently voiced complaint about the burden of taxes on small business is really an indirect expression of the problem that if a small business is to attract external capital it must promise to grow with unusual rapidity.

Costs, profits, and taxes.—Several respondents said that small businesses often do not and cannot price their products high enough to generate an adequate volume of retained earnings. Others stressed the belief that small businesses cannot control costs as well as large businesses. Still others said that when business conditions slacken, small businesses cannot compete with large ones effectively and cannot hold their share of the market. All of these factors suggest a volatility of earnings. Taxes, though not heavier, are always more of a potential embarrassment to businesses that are plagued with volatile earnings.

Getting full tax benefits from developmental expenditures.—New enterprises based on advanced technology often must spend money on research before there is any income. These expenses cannot be used as a tax offset until income has been produced. If the developmental period exceeds the loss carry-forward period, these costs yield no tax

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large corporations in distributing income to owners through salaries, and in putting owners in possession of real income through deductible expenditures, such as making sales trips to vacation areas and using company cars for personal purposes. The only tax disadvantage for small business encountered was the problem of taking full tax advantage of developmental costs.

offset whatsoever. Even if the tax offset is taken but is considerably deferred in time, the real economic value of these tax savings is reduced. Considering the high cost of capital to new and small ventures, it may be considerably reduced.

A large business engaged in a variety of activities usually is able to charge off developmental expenses on a current basis and so enjoy an immediate tax advantage.

Tax effects on the form of investment

The respondents felt that the taxes falling directly on investors (i. e., not business taxes per se) made venture investment inappropriate for small and even medium-size investors. They pointed out, however, that some wealthy investors can secure positive advantages from venture investment, if they work out capital structures that take account of tax considerations.

The interviewers asked a question regarding the securities used for investment in small-business ventures partly to assess this influence on the capital structures of new enterprises, and partly to discover the division of control and profits. While the interviewers gained some insight into the process of investment analysis undertaken by the respondents, they did not learn a great deal about the exact forms and instruments. The respondents frequently pled ignorance and said that the form of their participation was arranged by their tax lawyers and accountants.

Almost all of those interviewed, however, confirmed the fact that a sophisticated outside investor would not put equity funds in a small-business venture unless assured in advance that he could take most of his rewards in capital gains form. Though the devices used by tax lawyers and accountants have not always stood the test of litigation, it appears that most of the time they have been reasonably successful. It might even be said that some of the more sophisticated and aggressive of the respondents had a positive preference for investment in these special situations, since they seemed to be confident of their ability to tailor the deals and to assure themselves of favorable tax treatment. Thus the evidence uncovered in these interviews confirms the general conclusion reached in the Harvard Business School study of the effects of taxation on individual investment.[14] This study showed that conservative investors were made even more cautious by taxes, but that aggressive investors were probably induced to be even more venturesome, particularly if they could get their rewards in capital gains form.

Realizing returns in capital gains form.—The respondents almost universally reported that if they could not reap the rewards of small-business investments in capital gains form, investment in such enterprise was hardly worthwhile. The interviews also suggested that it has generally been possible to do so, though occasionally stumbling blocks have been encountered. The interviewers got the impression that as the older tax-reducing devices failed to stand the test of litigation, new and ingenious devices were invented. If existing tax law

[14] J. Keith Butters, Lawrence Thompson, and Lynn L. Bollinger, Effects of Taxation: Investments by Individuals (Harvard Business School, 1953). See also J. Keith Butters, Effects of Taxation on the Investment Capacity and Policies of Individuals, Federal Tax Policy, pp. 126–135.

is a stumbling block, new tax legislation may be sought in the interests of special situations.[15]

The means for getting the rewards of small business investment in capital gains form is usually to have the investor take his participation in the form of common stock, a stock option, a warrant, or a preferred stock or debenture convertible into common stock. If the participation is in its simplest form, that is, common stock, there is a related tax difficulty: The enterprise itself cannot deduct dividends as an expense. As a result, the package form of participation appears to have become nearly universal: A combination of the basic investment in some debt form, usually on an installment or serial basis, accompanied by common stock, a stock option, or a warrant for the purchase of common stock. A company in which the ratio of debt to pro forma equity is very high is known in expert tax circles as a "thin" corporation. If the proposed division of dividends and of control are not parallel, the capital structure may have "classified" forms of equities such as class A and class B common stock with one predominating for purposes of control and the other for dividend allocation. The efforts to distribute the rewards as capital gains but to maximize the expense deductions of the enterprise have led to the invention of still other technical tax devices.

A few respondents reported refusing to resort to such devices. One venture capital fund makes it a practice to take most of its participations in uncomplicated common stock form.

Taking tax advantage of losses.—Investor respondents mentioned one tax problem quite frequently. They seemed to feel unable to take what they considered to be a satisfactory tax advantage from the losses involved in venture capital investment. If an investor in small enterprise does not plan carefully in advance, he may find himself with a loss which, as a capital loss, cannot be used as a tax offset (except to the extent of the $1,000 capital loss that can be charged against regular income each year). To have a symmetrical position with respect to taxes on capital gains and losses, an investor needs to be able to use his losses to offset gains. This requires a diversified and rather large investment portfolio.

The methods used by investors for assuring a tax offset of losses seem to fall into two categories. In the first place, the partnership form of organization sometimes has some real advantages for this purpose. With it, losses can generally be offset against regular income. The investor may be exposed to more contingent liability than he finds comfortable, but where he can control this liability exposure, the partnership form of business organization seems to have some advantages. Broadway theatrical productions, for example, are almost always organized as limited partnerships. Secondly, advance planning for possible losses may include the establishment of a portfolio position in which capital gains, particularly short-term capital gains, may be available for realization at that time when it may be advantageous to book the loss on a special small business venture. Unfortunately, the interviewers were unable to get a clear picture of how these arrangements work in practice.

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[15] William L. Cary, Erosion of the Tax Laws, Harvard Business Review, September–October 1955. See also William L. Cary, Pressure Groups and the Revenue Code: A Requiem in Honor of the Departing Uniformity of the Tax Laws, Harvard Law Review, March 1955.

The timing of both losses and gains is an important strategic factor in tax planning. Direct investment in a small business venture reduces the market flexibility of the investor. Such an investor cannot always estimate just when his gains and losses will appear. He does not have as precise control of the timing for realization of these gains or losses as is true when he invests in open market securities.

Since time devoted to development of a new product may be extended almost indefinitely or terminated almost without notice, the investor in a new product situation may vary the time at which he takes his loss (if a loss seems inevitable), depending on his other financial affairs. Inventors and developers have sometimes been left stranded when their backers, patient for a long while, withdrew their support abruptly when taking a tax loss was advantageous to them. The timing of some losses, for example, those on theatrical productions, cannot be "managed" for tax purposes. This means the loss cannot be arbitrarily put in the most advantageous tax year by some act of management by the investor as is true with other kinds of losses.

Inherent tax differences of various industries.—The interviews showed quite clearly that tax considerations make some lines of business inherently more attractive than others; oil exploration stands at the top of the list. Other forms of mineral extraction have similar though not as compelling tax advantages.

Estate taxes on small business equities.—Because small business investments are far less liquid than most other forms of investment, investors, having enough wealth so as to involve their heirs in sizable estate tax liabilities, are likely to feel quite restricted in the extent to which they can participate in such ventures. This is not always a disadvantage, however; some investors reported that they were able to make advantageous use of special situation investment, such as using low-cost stock options as a way of transmitting property of great value to heirs at a low tax cost.

Salvaging losses for "carry-forward" deductions.—Many of the respondents indicated a preference for going into a special situation early in its life history rather than later after it had possibly gone through some difficult experiences. Rather than being deterred by the fact that after a period of operation such a venture may have made considerable losses, others pointed out the strategic tax value of earlier losses. If the enterprise can be converted from a losing one into a profitable one, there is an interval during which the losses can be carried forward and offset against profits. During this period the sizable post-tax retained earnings can be used to build up liquidity and equity investment. On the other hand, if the enterprise continues to be unsuccessful and to incur losses, its owner may merge it in with some more successful venture of his where he can use the accrued losses as tax offsets. Losses have salvage value in tax planning.

RELATION OF CREDIT AND MONETARY POLICY TO VENTURE CAPITAL SUPPLY

Opinions of respondents with respect to the influence of credit and monetary policy on small business investment were surprisingly mixed. A few seemed to feel that it had a dominant influence on the availability of equity capital to small business; others were far less impressed with this influence. It was notable, however, that many of the respondents were rather well informed with respect to the cur-

rent state of monetary policy and often were anxious to debate the subject with the interviewers.

The opinions of respondents with respect to this influence fall into two categories: a majority of respondents felt that the influence of monetary policy on business conditions and on the level of stock prices was material. They related this general influence to the climate of small business expectations in a number of ways. Several respondents said that the availability of commercial bank credit was a significant factor in their own operations as investors and in the sort of rounded financing arrangements they attempted to make for the ventures they were contemplating. The respondents almost universally valued their commercial banking connections, respected their bankers' feelings, and many of them were sensitive to the bank lending policies prevailing at the time the interviews were conducted.

Influence of business conditions and stock prices

Several respondents held the view that small businesses are less stable than large corporations and more influenced by the swings in business conditions. A few respondents were so explicit as to suggest that the greatest contribution public policy could make to small business success would be to support an unbroken and high level of general business activity.

A rising general price level and booming business were thought to encourage special situation venturing, perhaps even more than general equity investment. The stock market seems to play a special role: as listed stocks become "overpriced," they become less attractive in comparison with special situations. Conversely, depressed economic conditions and a declining stock market contribute to an atmosphere of caution and reduce the price of listed securities to the point where potential investors consider them bargains. A number of respondents referred to particular instances of venture deals and small public offerings that were postponed during the latter half of 1957 as the result of the drop in the stock market. Almost without exception the respondents thought stock market prices related to monetary policy; so clearly related as to be axiomatic.

A few respondents suggested that the opportunities for a special situation investor could be found even when general business conditions were not too ebullient. It is notable that some of this second group of respondents, as near as the interviewers could tell, were those who specialized in rescuing faltering companies.

A high level of stock prices logically induces venture investment for specific tax reasons. If an investor has unrealized capital gains in his portfolio, he may prefer not to "realize" them until he can manage an offset. Under such circumstances he may feel more than usually disposed to "take a flier," to make a direct investment in a small business venture. If he wins, fine; if he loses, the loss can be used to offset those other gains; in effect, to release those previously unrealized gains. Without the possibility of such an offset he may prefer not to venture.

Influence of bank credit availability

In addition to the general influences, monetary policy affects the flow of equity funds into venture situations in two rather more direct ways. These both reflect a close relationship between the injection of equity funds and the extension of bank credit.

First, a number of the investor respondents said they used bank credit to finance part of their venture operations. One large venture fund borrows frequently from banks to obtain a part of the funds it employs in special situations. Individual respondents reported that they and other investors often financed their operations partly through bank credit. At the time of the interviews one investor reported being pinched and "not interested" in any new special situations. A policy of monetary restraint may thus directly curtail the availability of funds to investors who trade on their net worth for venture investment.

Second, venture investors are frequently willing to put up equity money only if debt financing can be brought in simultaneously and so increase their leverage. Some backers reported that they had endorsed the notes of firms in which they were interested in conjunction with the investment of their own funds. If problems arise in arranging such bank or insurance company debt financing, as is more likely during a period of monetary restraint, this may inhibit the flow of equity funds into new ventures.

Appendix

Characteristics and Limitations of the Interview Plan of the Survey

The number of interviews on which this report is based is distributed among classes of respondents and Federal Reserve districts as follows:

Type of respondent	Federal Reserve district					
	Boston	New York	Minneapolis	Dallas	San Francisco	Total, 5 districts
Investment bankers	4	11	5	5	12	37
Private investors	1	2	1	4	3	11
Financial consultants	2	2	2	1		7
Business brokers	1	1				2
Institutional investors [1]	4	5	1		1	11
Miscellaneous [2]	5	5	4	1	4	19
Total	17	26	13	11	20	[3] 87

[1] Venture capital funds and closed-end investment companies.
[2] Mainly commercial bankers.
[3] The total number of persons interviewed is somewhat larger since, in a number of interviews, 2 or more respondents were present. This was particularly true of partners in investment banking firms. About 12 of such "doubles" were recorded in interview notes but the actual number may have been somewhat larger.

To initiate the survey, a standard interview form was devised. In practice, however, this form was all but abandoned. It was not universally or even generally applicable. The great heterogeneity of the respondents meant that the interviewers had to adapt their questions to each situation as they encountered it. Even among a seemingly homogeneous group of respondents such as investment bankers, the interviewers found a high degree of specialization. The questions relevant for one banker often had no relevance for another.

Because the standard interview form was not generally applicable, the interviewers felt it necessary to prepare extensive interview notes. In a few cases the written interview notes were checked with respondents in order to verify the accuracy of reporting. Even when interview reports were made on the standard form, they were almost

always supplemented by extensive additions and comments. These interview reports and notes became the foundation for the drafting of this report; a complete file of them was studied by each of the staff members who contributed to this report.

The heterogeneity of respondent interests and policies has some added significance with respect to the apparent availability of venture capital. A none-too-sophisticated small-business proprietor might assume, after talking with 1 or 2 investment bankers, that he would receive the same kind of response from other members of this fraternity. Our interview results suggest that this conclusion could be wrong. A "deal" that would be thrown out of one office might be entertained sympathetically in another. Standards and practices in investment banking are far less uniform than those prevailing in commercial banking.

The initial interview in most Federal Reserve districts was conducted with a person, usually an investment banker, who was known to be interested in special situations or in negotiating with the smaller concerns that applied for financing. This initial respondent was asked to name others who might be helpful and knowledgeable in the field of equity financing of small business. This chain of reference was continued throughout the interviews; ultimately it led away from the investment banking firms to specialized financial consultants, to several closed-end investment companies that were known to take positions in "special situations," and to the managers of several venture capital funds. The orbit of interviews ulitimately exceeded even these margins and included a few business brokers, some specialists in rehabilitating the finances of small concerns that had gotten into difficulties and even two business managers for Broadway theatrical productions. By mistake, one small-business man—a borrower rather than an investor—was interviewed.

In a very crude sense, it could be said that these interviews represented very much the circuit that might be traveled by a promoter seeking backing for a projected enterprise. The reception accorded our interviewers was doubtless far more detailed and courteous and made in quite a different vein than the interview that would have followed a real application for funds. Nevertheless, this analogy is not without some medit: It gave the interviewers a "feel" for the real availability of funds and the terms on which such funds are supplied. It also gave them a chance to judge the financial acumen a proprietor would need to bargain intelligently, and the nature of financial advice that he probably would receive.

This project also suffered from the fact that its intended scope and purview could not be neatly defined. Other parts of this Federal Reserve survey of small-business "lenders" were aided by clearly recognizable institutional and functional limits. A commercial bank is a commercial bank; thus the project for interviewing commercial-bank lenders was given easily recognizable limits. While the institutional arrangements for so-called commercial financing and factoring are not quite as clear cut, the functional nature of these activties in accounts: receivable and inventory financing are fairly well known. Even the inquiry into trade credit and its role in small-business financing did not involve insurmountable questions of coverage.

This inquiry into small-business equity-capital financing was also plagued by the old question: How small is "small" business? The

many studies that have already been made of small-business financing assure one that the equity capital for most beginning enterprises is supplied by the promoter, his relatives, and, possibly, his friends. This supplied a lower boundary for the inquiry. It obviously would have been impossible to have studied "family and friend" financing within the time and with the small resources available for this project. Even if possible, it would have duplicated in part another Federal Reserve survey now in its planning stages, the so-called borrowers survey, which is expected to cover small-business men themselves.

The upper limit of size initially adopted for this survey was the size of a business which can raise money in the public markets. While the test of the availability of public financing seem to furnish a logical boundary on the other side of our inquiry, it had to be breached. A business, large enough to go into the public markets for financing, may still be "small" for purposes of financial analysis. The interviews disclosed that some marginal concerns falling in the twilight zone between private deals and public issues were really much more nearly small business examples. The interviews also revealed that many equity financings negotiated are considerably larger than the bottom margin of public financing. Since the lone of demarcation between such offerings and private negotiated deals was vague, it was felt safer to extend our inquiry part way into the area of overlap between public and negotiated financing.

Not only was the interview sample pattern unscientific, the interviewers started with little experience in this sort of inquiry. In most scientifically conducted surveys of opinion, the professional interviewers stand apart from the process of planning and analysis; they are simply the vessels by which responses are gathered. One distinguished analyst of public opinion polling has admitted that he cannot match the skill of his own trained interviewers.

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